Gulstonian Lectures
ON
STERILITY IN WOMAN.

Delivered in the Royal College of Physicians, London,

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LECTURE II.—PART I.
ITS THEORY OR CAUSATION.

MR. PRESIDENT, VICE-PRESIDENT, AND GENTLEMEN,—In studying the theory, or inquiring into the causes of sterility in woman, it is advantageous to keep in mind the corresponding condition in plants and in the lower animals, for in all living beings there is more or less similarity of the sexual organs and offices, and disturbance of function in one division will throw light on disturbance in another. On this subject I have made many, but only casual, observations, and have had the privilege of conversation with gardeners and breeders, classes of men in whom are found many of remarkable intelligence and acuteness of observation. But the great storehouse of facts and references on which I rely is Darwin's "Variation of Animals and Plants under Domestication." Plants and some animals propagate otherwise than by sexual generation, but it is only the sterility arising from disturbance of the regular course and consequences of sexual union that has a direct or nearly direct bearing on the present inquiry. The sterility of hybrids, which, considering the theory he is supporting, forms naturally the main study of Darwin, is of comparatively little interest to us, and will not be hereafter referred to, but many of the principles of sterility find strong support in the special sterility of hybrids.

Viewing the subject generally, we may anticipate a great result by pointing out the paramount prevalence and potency of constitutional conditions as causes of sterility. Such are cold and heat, overfeeding and underfeeding, youth and old age, degradation of general health, confinement, and interbreeding.

Local conditions occur in plants that are quite sufficient to account for or cause sterility. Such are contabescence of anthers, monstrous flowers, double flowers, seedless fruit. These local conditions are the result of the general or constitutional conditions of the individuals in which they occur; and they have their place rather in the results of sterility, or of the conditions producing sterility, than in the causes of sterility. They have their analogues in such abortions, dead fœtuses, unhealthy offspring, or monstrous products of animals as are believed to be results of what may be called the sterile diathesis. The causes of sterility are causes of these imperfections, and for that reason they are referred to the sterile tendency. They do, indeed, constitute the sterility to be accounted for. Thus, to wander into hybridism for an example, it is an observation of Gärtner that hybridism in plants, a great cause of sterility, produces also a strong tendency in flowers to become double.

In the vegetable kingdom everyone has observed that source of sterility which may be, no doubt nearly truly, designated a degradation of general health. A plant covered with flowers is brought from a house where its fertility has been stimulated to the highest degree, and placed as an ornament in a sitting-room, where it remains till its charms are lost, and the result is such an injury to its constitutional vigour that it is sterile, or nearly sterile, for one or for several subsequent seasons. Its fertility may never be restored, or only after several years of the medical care of a skilful gardener. The scarlet geraniums which are brought from their healthy homes in full bloom to adorn the houses of inhabitants of densely populated cities soon show the injurious influence of their new surroundings, however well they may be cared for; their flowers become less numerous, or are altogether wanting; then their leafage diminishes greatly in quantity, and their existence becomes a mere lingering. A rose garden, lately in a suburban position near London, gets surrounded by the growing city, and gradually as the buildings increase the fertility of the roses diminishes; the garden becomes useless. Some of our finest forest trees, and among them some plants, grow beautifully in our squares, producing wood in even exaggerated quantity, and a clothing of leaves sufficient for ornament; but there is no wealth of leaves, and there is no seed. In some cases an exception makes the rule more striking, as when a cherry tree in the heart of the city of London lately produced flowers and matured its fruit, so far as maturity is indicated by beauty, size, and taste.

Practical gardeners attribute sexual injury to overstimulation by manure, or what they call overfeeding. This ordinarily produces great growth of the tissues; and when this is restrained by judicious pruning, it forces out a large or excessive crop of flowers and subsequent fruit. In the language of Spencer, there is produced by overfeeding an excess of individuation, the restraint of which results in excess of genesis. The natural tendency of the overfeeding of plants is to produce a degree of relative sterility; and this may show itself in paucity of flowers, or it may show itself in the production of those double, or monstrous, or abortive flowers which are so much admired. The opposite result is produced by moderate or full feeding. Then, in mature plants there is not great growth of tissues, but rather a production of fruit. Sometimes the plant, without assignable cause, but especially if underfed, has an exaggerated production, and is said to run to seed; and, from whatever it may arise, it in a reflex manner injures the plant, which consequently becomes blighted and often dies. Excessive production here seems to take the place of sterility.

The following is an interesting illustration of the effect of overfeeding and of moderately feeding or underfeeding a vine, and it is important because it specifies a particular local condition or disease which is apparently the cause of the infecundity of the overfed plants, and so indicates a line of investigation which may with advantage be pursued in other examples of sterility. In a recent letter from Mr. Thomson, the well-known vine-cultivator, he writes:—"A circumstance has arisen in my own experience that I have never seen noticed in print. A vine called the Alnwick seedling, if grown vigorously in rich soil, fails to set its fruit even when aided. This failure is caused by the exudation from the female organ of a dewdrop of sap, which moistens the pollen, and it does not descend through the pistil and impregnate the ova. When the vine is grown in poor soil the dewdrop does not appear, and impregnation takes place; seeds are formed in perfection, but the pulp for which the grape is grown is almost absent. I know (he adds) no other grape affected in the same way or subject to the same influences."

I know no good account of the sterility of plants as regulated by age, but the influence of age is well recognised. A young fruit tree bears no fruit, or very little, and that little imperfect, and the careful gardener does not permit it to bear much or even a little, believing that fruit-bearing injures growth and diminishes future fertility. The influence of old age and decay in fruit-bearing trees is also well known: the fruit is ill developed, and there is little of it.

"All know," says Spencer, "that a pear tree continues to increase in size for years before it begins to bear, and that, producing but few pears at first, it is long before it fruits abundantly. A young mulberry, branching out luxuriantly season after season, but covered with nothing but leaves, at length blossoms sparingly, and sets some small and imperfect berries, which it drops while they are green; and it makes these futile attempts time after time before it succeeds in ripening any seeds. But these multiaxial plants, or aggregates of individuals, some of which continue to grow while others become arrested and transformed into seed-bearers, show us the relation less definitely than certain plants that are substantially, if not literally, uniaxial. Of these the cocoa-nut may be instanced. For some years it goes on shooting up without making any sign of becoming fertile. About the sixth year it flowers, but the flowers wither without result. In the seventh year it flowers and produces a few nuts, but these prove abortive, and drop. In the eighth year it ripens a moderate number of nuts, and afterwards increases the number, until, in the tenth year, it comes into full bearing. Meanwhile, from the time of its first flowering, its growth begins to diminish, and goes on diminishing till the tenth year, when it ceases."

The evil influences of interbreeding is a subject too exten-

sive to enter upon at any length. In plants it is corroborated by the well-known advantage of crossing of varieties. But it needs no confirmation, for there are self-impotent plants, plants more thoroughly fertilised by a nearly allied species than by pollen of their own species, and there are the wonders of dimorphism with sterility arising from union of individuals not only of the same species but of the same form. In the works of horticulturists is to be found ample evidence that interbreeding of plants tends to weakness, malformation, and sterility.

The influence of heat and of cold is, in plants, well illustrated by the failure of most alpine species to produce flowers and fruit in lowland gardens, and the same failure of lowland plants as they ascend the sides of mountains. A walk in the highlands will show the pines thriving on the hillsides and well covered with cones, but as greater altitudes are reached the trees are observed to become stunted and the fruit entirely to fail.

The abortion-like sterility of plants is illustrated by the bearing of double flowers, of flowers whose seeds do not ripen, or whose seeds, though apparently perfect, are incapable of germination and growth. In some of the cases of seedless fruit and of fruit with few seeds or with one seed, or with imperfect seed, we have also abortion and at the same time a fine illustration of the working, locally, of the opposition between individuation and genesis. The whole plant, as the vine or the pear-tree, may have the appearance of health, and its fruit alone is unnatural. The tissues of the fruit-capsule are enormously developed, while the seeds have disappeared or are reduced to one or a small number. The luscious pear or the juicy grape are masses of hypertrophy or myxomatous-like degeneration while the seeds are the subject of extreme hypoplasia. Gardeners generally ascribe these results to overfeeding and overstimulation by manures and heat, but Darwin is more cautious, and in most cases does not analyse the causes farther than is implied in "unnatural conditions of life." No one, according to Lindley and Darwin, has produced double flowers by promoting the perfect health of the plant.

Before leaving vegetable physiology I would point out the frequent occurrence in plants of seeds which, though apparently perfect, will not germinate; they cannot be distinguished from their neighbours otherwise than by their incapacity for growing. The same failure to grow is often observed under closely similar circumstances in the eggs of the fowl and of other birds; they cannot be hatched, although no imperfection is discoverable in them. That there are such ova in other animals and in woman is highly probable, but in them the completeness of the demonstration is unattainable.

Very little is known of the sterility of animals, and it is easily understood that reliable observations can only, with great difficulty, be made on them, especially in a state of nature. Many authors, and latterly Darwin and his collaborators, have paid much attention to the great subject of the sterility of hybrid animals. Observations and experiments in this department are made chiefly on domestic animals, or wild animals in confinement, and each experiment has a high value. But the sterility of ordinary domestic animals has been little studied. In herds of fine heifers and cows, and in mares, it is occasionally exhibited, but I have no data as to its frequency; and in cattle, at least, observations are imperfect, the animal that, by sterility of one season, disappoints its owner, being generally at once fattened for the butcher.

It is a well-known belief among breeders, which may be historically traced to ancient times, that when the female of any kind is made to breed when very young, she does so at the expense of permanently preventing her own growth to perfection, and she will likely produce offspring that is not of the best quality. This failure is well illustrated in the case of the common fowl and of the turkey, the progeny of chickens and of turkeys one year old being not the best of their kind, and specially difficult to rear. Fanciers breed these animals from a female two years and a male three years old. The occurrence of sterility in early and in elderly life is clearly seen, and its degree easily made out in pluriparous mammals, as the dog and pig, and in birds whose broods can be counted, and whose yearly production of eggs can be also numbered. This subject will be discussed fully when we come to consider pluriparity in woman.

Overfeeding, or the production of fatness or of obesity in the female, is well known to be hostile to fertility, to be an illustration of the opposition of individuation to genesis. By special feeding and fattening turkeys and common fowls the henwife arrests almost completely the production of eggs. They may also be made fewer by starving the birds, and not fewer only but also smaller. These birds when highly fed sometimes exhibit excessive productiveness, two eggs being laid daily, an instance of great intensity of fertility; but this is not regarded with favour, having, I am told by a turkey fancier, an injurious influence, in their case, by delay of the commencement of laying in the season following that of the excessive production. The breeder of cattle prevents by careful management the fattening of the females.

In respect of feeding, comparisons are made between the relative sterility of wild animals and the comparative fertility of domesticated or confined animals of the same species, but the comparisons are not quite satisfactory from the intermixture of the influences of food and of domestication or confinement; and again, in the comparisons of animals fed on rich and on poor pasture, sufficient care is not taken to ensure that the compared animals are of the same breed. With this previous reflection I subjoin an interesting passage from Spencer's chapter on nutrition and genesis: "Clear proof," says he, "that abundant nutriment raises the rate of multiplication (and *vice versâ*) occurs among mammals. Compare the litters of the dog with the litters of the wolf and the fox. Whereas those of the one range in number from six to fourteen, the others contain respectively five or six or occasionally seven, and four or five, or rarely six. Again, the wild cat has four or five kittens, but the tame cat has five or six kittens two or three times a year. So, too, is it with the weasel tribe. The stoat has five young ones once a year. The ferret has two litters yearly, each containing from six to nine; and this notwithstanding that it is the larger of the two. Perhaps the most striking contrast is that between the wild and tame varieties of the pig. While the one produces, according to its age, from four to eight or ten young ones, once a year, the other produces as many as seventeen in a litter; or, in other cases, will bring up five litters of ten each in two years—a rate of reproduction that is unparalleled in animals of as large a size. And let us not omit to note that this excessive fertility occurs where there is the greatest inactivity—where there is plenty to eat and nothing to do. There is no less distinct evidence that among domesticated mammals themselves, the well-fed individuals are more prolific than the ill-fed individuals. On the high and comparatively infertile Cotswolds it is unusual for ewes to have twins, but they very commonly have twins in the adjacent rich valley of the Severn. Similarly, among the barren hills of the west of Scotland, two lambs will be born by about one ewe in twenty; whereas in England, something like one ewe in three will bear two lambs. Nay, in rich pastures, twins are more frequent than single births; and it occasionally happens that, after a genial autumn and consequent good grazing, a flock of ewes will next spring yield double their number of lambs—the triplets balancing the uniparæ. So direct is the relation, that I have heard a farmer assert his ability to foretell, from the high, medium, or low condition of an ewe in the autumn, whether she will next spring bear two, or one, or none."

An interesting department of the sterility of animals is that which results from confinement. This seems specially to affect what are vaguely designated the noble animals. Those which are sterile show great variations; some disdain to cohabit or have lost sexual desire; others have increase of sexual appetite, and cohabit freely or excessively, but without impregnation resulting, or with the result very rarely following. Some if impregnated bring forth only abortions, or young which are dead-born, or, if alive, feeble and ill-formed. There is, for instance, as Shorthouse has pointed out, a common occurrence of cleft palate in the lion's cubs born in the Zoological Gardens.

Among birds in confinement there are many good examples of change of sexual habits and of sterility. In some cases they have no eggs, or, if they produce, they have only comparatively few, or they may neglect the eggs when produced, or the eggs duly cared for may be incapable of being hatched. This abortional sterility arising from imperfection of eggs as a result of confinement is well proved by experiments made in France on the common fowl. When these birds were allowed considerable freedom, 20 per cent. of the eggs failed to be hatched; when less freedom was allowed, 40 per cent. failed; when closely confined, 60 per cent. were not hatched.

The power of temperatures that are not according to an animal's nature to induce sterility is no doubt very great.

Darwin mentions that Mr. Miller, a former superintendent of the Zoological Gardens, believed that the sterility of the carnivora there was increased by increase of exposure to air and cold. In winter, inadequately sheltered cows either cease to give milk or give it in diminished quantity. "And," says Spencer, "though giving milk is not the same thing as bearing a young one, yet, as milk is part of the material from which a young one is built up, it is part of the outlay for reproductive purposes, and diminution of it is a loss of reproductive power." Failure to maintain the cow's heat may entail such reduction in the supply of milk as to cause the death of the calf. Hard living, says Darwin, retards the period at which animals conceive, for it has been found disadvantageous in the northern highlands of Scotland to allow cows to bear calves before they are four years old. Roulin found that in the hot valleys of the equatorial Cordilleras sheep were not fully fecund.

The common fowl will not breed in Greenland or Northern Siberia. "In this country it is fed," says Spencer, "through the cold months, but nevertheless, in midwinter it either wholly leaves off laying, or lays very sparingly. And then we have the further evidence that if it lays sparingly, it does so only on condition that the heat, as well as the food, is artificially maintained. Hens lay in cold weather only when they are kept warm. To which fact may be added the kindred one that when pigeons receive artificial heat they not only continue to hatch longer in autumn, but will recommence in spring sooner than they would otherwise do."

On the subject of the interbreeding of animals there is a vast body of opinion as well as of facts showing its power in producing monstrosity and its ally sterility. "If we were," says Darwin, "to pair brothers and sisters in the case of any pure animal, which from any cause had the least tendency to sterility, the breed would assuredly be lost in a few generations." Elsewhere he shows that "long-continued close interbreeding between the nearest relations diminishes the constitutional vigour, size, and fertility of the offspring; and occasionally leads to malformations, but not necessarily to general deterioration of form or structure. This failure of fertility shows that the evil results of interbreeding are independent of the augmentation of morbid tendencies common to both parents, though this augmentation no doubt is often highly injurious. Our belief that evil follows from close interbreeding rests to a large extent on the experience of practical breeders, especially of those who have seen many animals of the kind which can be propagated quickly; but it likewise rests on several carefully recorded experiments. With some animals close interbreeding may be carried on for a long period with impunity by the selection of the most vigorous and healthy individuals; but sooner or later evil follows. The evil, however, comes on so slowly and gradually that it easily escapes observation, but can be recognised by the almost instantaneous manner in which size, constitutional vigour, and fertility are regained when animals that have long been interbred are crossed with a distinct family."

Regarding the very remarkable subject of sterility of sexual connexion with special individuals only, Darwin says:—"It is by no means rare to find certain males and females which will not breed together, though both are known to be perfectly fertile with other males and females. We have no reason to suppose that this is caused by these animals having been subjected to any change in their habits of life.....The cause apparently lies in an innate sexual incompatibility of the pair which are matched. Several instances have been communicated to me by Mr. W. C. Spooner (well known for his essay on Cross-breeding), by Mr. Eyton of Eyton, by Mr. Wicksted, and other breeders, and especially by Mr. Waring of Chilsfield, in relation to horses, cattle, pigs, foxhounds, other dogs, and pigeons. In these cases, females which either previously or subsequently were proved to be fertile, failed to breed with certain males, with whom it was particularly desired to match them. A change in the constitution of the female may sometimes have occurred before she was put to the second male; but in other cases the explanation is hardly tenable, for a female known not to be barren has been unsuccessfully paired seven or eight times with the same male, likewise known to be perfectly fertile. With cart-mares, which sometimes will not breed with stallions of pure blood, but subsequently have bred with cart stallions, Mr. Spooner is inclined to attribute the failure to the lesser sexual power of the racehorse. But I have heard from the greatest breeder of racehorses at the present day, through Mr. Waring, that it frequently occurs with the mare to be put several times during one or two seasons to a particular stallion of acknowledged power, and yet prove barren, the mare afterwards breeding at once with some other horse. These facts are worth recording, as they show, like so many previous facts, on what slight constitutional differences the fertility of an animal often depends."

Before leaving the subject of the causes of sterility of animals, I quote a passage from Darwin regarding the results of confinement. "Sufficient evidence," says he, "has now been advanced to prove that animals, when first confined, are eminently liable to suffer in their reproductive systems. We feel at first naturally inclined to attribute the result to loss of health, or at least to loss of vigour, but this view can hardly be admitted when we reflect how healthy, long-lived, and vigorous many animals are under captivity, such as parrots, and hawks when used for hawking, chetahs when used for hunting, and elephants. The reproductive organs themselves are not diseased, and the diseases from which animals in menageries usually perish are not those which in any way affect their fertility. No domestic animal is more subject to disease than the sheep, yet it is remarkably prolific. The failure of animals to breed under confinement has been sometimes attributed exclusively to a failure in their sexual instincts; this may occasionally come into play, but there is no obvious reason why this instinct should be specially liable to be affected with perfectly tamed animals, except, indeed, indirectly, through the reproductive system itself being disturbed. Moreover, numerous cases have been given of various animals which couple freely under confinement, but never conceive, or, if they conceive and produce young, these are fewer in number than is natural to the species. In the vegetable kingdom instinct of course can play no part, and we shall presently see (he says) that plants, when removed from their natural conditions, are affected in nearly the same manner as animals. Change of climate cannot be the cause of the loss of fertility, for, whilst many animals imported into Europe from extremely different climates breed freely, many others, when confined in their native land, are completely sterile. Change of food cannot be the chief cause, for ostriches, ducks, and many other animals, which must have undergone a great change in this respect, breed freely. Carnivorous birds, when confined, are extremely sterile, whilst most carnivorous mammals, except plantigrades, are moderately fertile. Nor can the amount of food be the cause, for a sufficient supply will certainly be given to valuable animals, and there is no reason to suppose that much more food would be given to them than to our choice domestic productions which retain their full fertility. Lastly, we may infer, from the case of the elephant, chetah, various hawks, and of many animals which are allowed to lead an almost free life in their native land, that want of exercise is not the sole cause. It would appear that any change in the habits of life, whatever these habits may be, if great enough, tends to affect in an inexplicable manner the powers of reproduction. The result depends more on the constitution of the species than on the nature of the change; for certain whole groups are affected more than others; but exceptions always occur, for some species in the most fertile groups refuse to breed, and some in the most sterile groups breed freely. Those animals which usually breed freely under confinement rarely breed, as I was assured, in the Zoological Gardens, within a year or two after their first importation. When an animal which is generally sterile under confinement happens to breed, the young apparently do not inherit this power; for had this been the case, various quadrupeds and birds which are valuable for exhibition would have become common. Dr. Broca even affirms that many animals in the Jardin des Plantes, after having produced young for three or four successive generations, become sterile; but this may be the result of too close interbreeding. It is a remarkable circumstance that many mammals and birds have produced hybrids under confinement quite as readily as, or even more readily than, they have procreated their own kind. Of this fact many instances have been given, and we are thus reminded of those plants which when cultivated refuse to be fertilised by their own pollen, but can easily be fertilised by that of a distinct species. Finally, we must conclude, limited as the conclusion is, that changed conditions of life have an especial power of acting injuriously on the reproductive system. The whole case is quite peculiar, for those organs, though not diseased, are thus rendered incapable of performing their proper functions, or perform them imperfectly."

Croonian Lectures
ON
MODERN THEORIES AND TREATMENT OF PHTHISIS.

Delivered at the Royal College of Physicians, London,

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LECTURE I.—PART I.

MR. PRESIDENT AND GENTLEMEN,—When your kindness committed to me the charge of laying before you in these lectures some subject of more than passing interest to our practical profession, I had to consider whether I should attempt an addition to the knowledge we already possess, or taking the standpoint of critical experience, and placing you upon it, I might not with more advantage review the labours of others, and the ever-varying features of opinion. In the former case I should have been able to add but little to the great mass of knowledge contributed by many observers, and by several whom I see before me, whereas in the latter I should but make an appeal to the experience and judgment of all, and if fortunate might not only give expression to the doubts and difficulties of some, but possibly afford more firm ground for conclusions on subjects of grave import to every practitioner of our art. This method of reviewing and taking stock of our knowledge has much to recommend it, provided it be not too frequently practised. There are transition periods in which it is a wise, almost a necessary, act of mental impartiality to look back and see both what has been *done* and *thought* by our predecessors. There is a natural proneness to a belief in the superiority of our own views to those who have gone before us. We are in fact their critics, and the critic always fancies himself higher than the criticised. We are the inheritors of their labours and their intellectual accumulations, and our first step as heirs is to value at what we think a just estimate the legacy of their knowledge. Of course every student has to place himself on a level with the past of that branch of Science or Art which he proposes to acquire; but every impartial critic has not only to know what has been observed and thought, but should study the causes which led up to the various opinions which he will find recorded. The art of which we are ourselves students is essentially transitional; it has derived its form and colour from the errors as well as the wisdom of past generations, while occasional great leaders have stamped upon it the impress of their own genius and individuality. To see with any degree of clearness, as the great observers of the profession saw one or more generations back, we should, like them, emerge from the comparative darkness of the age in which they lived, and from the mists of false teaching and imperfect science in which they were trained, into the light which emanated from their own genius. Around everyone who has added something real to knowledge, there is a luminous atmosphere which enables him to see what others did not recognise, and to us living in the far distance of time, it is not always easy to distinguish this increased illumination shed by genius from the more steady light of gradually increasing knowledge. What I mean is that the discoverer and propounder of a new theory or observations tending to reverse the opinions of the time is surrounded by a halo, into the zone of which we may scarcely enter, but which largely affected the results of his teaching at the time. Our medical knowledge, but especially our medical theories, have, as we know, received the impress of many a great name, and as successive generations continued to teach these doctrines the whole community of the profession became impregnated with the views of certain great masters. The advance of medical knowledge has ever been, as is indeed the case with all the sciences, a record of the work of many observers and labourers, but illuminated here and there by the genius of a few who from time to time stood out from the crowd generalising the knowledge and opinions of the many, and thus became the representative of theories which were to bear their name, and give form and colour to the knowledge of the day. It is, indeed, well for us that our art is transitional, and that we hold to no teaching which can be disproved, but these masters did a good work in crystalising and so transmitting definite propositions for our reception or refusal.

Now, it is because our knowledge is essentially transitional and progressive that I venture to think I may occupy your time not unfruitfully in reviewing some of the changes of opinion through which we have passed, and are passing. I believe that we are now exactly in one of those periods of thought when some think that all old things are passing away, and "that all things must become new before we are nearer truth." I believe that the wisdom of past observers, which is only a synonym for their knowledge, is being slighted because it is old, and that the *eureka* of modern observers and theorists threatens to disturb much that is venerable, not alone from its age, but from its deep foundation in truth. I see in much of the present day a tendency to generalise from a few facts instead of accumulating great stores of evidence from which to deduce something like a general law. We cannot but recognise a tendency to refer all morbid influences to a few observed microscopical objects in diseased matter, and from these to rush to a conclusion affecting the very roots of our social life that all such matter is transferable, and may be propagated from individual to individual. Much that was believed—nay, much which was proved—is brought up into the focus of argument, where theories are sometimes more prevalent than facts. We are almost asked to believe that all diseases have a common nucleus. In the midst of our modern light a disbelief has crept in of ancient lights, which, not the less, "were lights shining in darkness."

It may be that the tendency of the hour is not to incredulity, indeed it is rather to an over-advanced faith in some things, but it is shaky on some ascertained points, and, as all young life, is mixed with imaginative speculations which tend to error. We have discovered some things, and much that is great and useful; we can prevent germs of disease from entering the system; we can prevent secondary infections, but it does not follow that all disease is of germ origin or that all secondary disorders are from septicæmic sources. We have by careful pathological work made it clear that many broken-down lungs have never had a trace of tubercle, while that many tubercular deposits have never broken up the lung structures, yet it does not follow that every case of phthisis is of inflammatory origin, or that innumerable cases do not progress from tubercle to caseation and softening and cavity with their known train of events. The contagiousness and inoculability of phthisis are now the received faith of many, and the treatment proposed has of course varied with the theory of the proposer. Some are sent to snowy heights, others to relaxing river beds. Disinfectants and antiseptic remedies are more in vogue than nutrients, and surgical principles are applied to cavities in the lung. I mention these not to disparage them, but to justify my assertion that we are actually in one of those transitional periods when thought is rife on the subject of phthisis, its cause and its extirpation. In the days, Sir, when you and I were students we found it difficult to get a word spoken about phthisis. It slew then, as it slays now, about one-fifth of the adult population, but few lecturers spoke of it, and no student was examined on it. We never asked then if hæmoptysis were a cause or a consequence of any of the other events of phthisis; of the nature of its peculiar fever and waste; of the cause of its secondary disorders; of the retarding structural alterations which nature erects as barriers against its local mischief. But those have become subjects of investigation, and inquiry is awake, and good, and not evil, must be the result. There is doubtless no disease so hopeless in its progress and results that we shall not find it to be capable of alleviation or prevention, and the prospect is not bad for an improved knowledge where there are so many inquirers. It is from stagnation of opinion, hopelessness of more knowledge, that the thoughtful mind recoils as from the death of all improvement in our art.

These form some of the considerations which have weighed with me in selecting "Phthisis, its Modern Theories and its Modern Treatment," as the subject of these short lectures. The young among us will not hesitate to reconsider the researches and opinions of former great men, while the older may excuse a reconsideration of questions with which they are already familiar, from the vast importance of the results, if results we are to have from newer teaching. It is also evident, as is indeed the case with all medical subjects, that

this disease does not stand alone, that it is impossible to isolate it from considerations of general pathology, and that the laws which regulate its progress and results are conditions common to many diseases. There is here no special pathology, as there should be no special treatment; and we may well quote the well-known saying of one of the most thoughtful of our predecessors, that "it demands a higher discipline than any mere knowledge of auscultation rightly to comprehend it." I propose to consider briefly, then, the older doctrines of phthisis, and to compare them with the later; to point out the morbid changes, their causes, and their relation to the progress of the affection; to inquire into the causes of the secondary disorders, and to consider what has been advanced as to the germ origin of phthisis, and the evidence in existence as to its contagiousness. I shall also ask, as arising from these considerations, how its treatment is to be guided; on what principles we should advise the various climates; and whether the local disease in the lung be the main condition to combat, or if we are to rest contented with remedies of a nutrient and general character. If in this review I should appear to generalise rather than to descend into too much detail, you will, Sir, I hope, attribute it to the largeness of the subject, and to a desire to bring before you such salient points as come in prominent relief before each of us in daily practice. I am also addressing, and with much secret diffidence, an audience most highly informed on this very subject, many of whom are the advanced pioneers of our knowledge.

Reviewing the literature of phthisis from the earliest times of which we have any record, we may say that the Greek word for *waste* expresses the idea of the disease when it was uppermost. The wasting of the bodily tissues was the earliest, the latest, and the most marked symptom of the disease throughout. It became evident before cough and expectoration, it fluctuated with the patient's other conditions, and it ended by exhausting him to the grave. We know now from auscultatory signs that this waste is greatest when the morbid product in the lung is breaking up, but before stethoscopes were invented the fact could only be proved by the increased amount of expectoration which then occurred. Fever, indicated by chills, heats, and sweatings, also coincided with increased waste of tissues. The correlation of these symptoms with waste was not understood. We now know that the waste itself and the débris of tissue poured into the blood are direct causes of the high temperature, and that there is a strict coincidence between three conditions—(1) active lung irritation, (2) tissue waste, and (3) high temperature. But we may take it that the ancient view before stethoscopes was that waste was the leading and most incorrigible symptom.

It remained for Laennec, Bayle, and their followers to describe and map out by physical signs the nature and amount of lung disease. We are familiar with their teaching. The grey miliary tubercle deposited sparsely or thickly in portions of the lung underwent degenerative changes. The masses caseated, ran together, softened, and in their softening broke down the surrounding tissues of the lung, strangled its nutrient bronchial as well as the pulmonary proper vessels, cut off the circulation, and caused the death of the part. A cavity, more or less irregular in size and shape, resulted. Inflammatory products surrounded, and were a consequence of, this softening and disintegration. The secondary congestion so commonly observed in advancing cases of disease at the base of the same or opposite lung were fresh deposits of tubercle, only to be accounted for by the lowered constitutional state of the patient—the tubercular cachexia, as it was called. He got an unhealthy inflammation, involving all the tissues of the lung, though why he should have had any affection of the opposite lung does not appear from Laennec's reasoning. In like manner the well-known changes in the intestines causing tubercular inflammation of the mucous glands took place, and diarrhœa precipitated the fatal issue. The constitution or diathesis in which this occurred was called scrofulous, and glandular swellings tending to slow inflammatory change and caseation took place in the cervical, mesenteric, and other lymphatics. These, like the tubercle in the lung, were the secondary results, so to speak, of a primary cachexia or constitution and of the tubercular habit. I take it that this is a fair description of the theories of Bayle and Laennec. After an investigation of many thousands of cases of phthisis I do not think it can be taken to account for all the phenomena of that disease, but this I shall again notice. What the discoverers of auscultation did prove was this. They recognised certain morbid changes in the lung which they called tubercle. They noticed its physical alterations and its tendency to degenerate, and they gave us a means of defining and even measuring the progressive destruction of lung tissue, which resulted as these masses softened and involved the surrounding parts. I do not know that auscultation has added much to what Laennec taught us about phthisis. He was wonderfully accurate and perfected physical examination in a marvellously short time. What more do we know now of the signs of cavity or of pneumothorax than the knowledge he left us? We have refined on his teaching no doubt, especially in the diagnosis of incipient disease, and some phenomena of effusion into the pleura and pericardium, but he gave us a masterly method of identifying changes of lung structure. Nor was his pathology at fault. He did not go far enough. So far as his description of tubercle goes it is verified by daily practice, but it was all tubercle with him. He did not allow cases of phthisis which were originated in inflammatory change, and in which there was no tubercle at all. It would be unjust to the memory of Addison not to point out that he in England was the first to hold that inflammation is an occasional and common cause of phthisis. His beautiful illustrations are accurate pictures of the results of inflammatory change. There is, then, a phthisis without tubercle, and in many post-mortem examinations no tubercle is to be found. Again, the secondary deposits of tubercle, which often surround old inflammatory products breaking up in the lung, do not appear to have a fair place in Laennec's descriptions. The secondary congestions in the base of the same or the opposite lung were regarded as fresh tuberculous attacks, and the mechanical theory of morbid matters carried and deposited on the pulmonary tissue is modern, and found no place in his work. The influence of hæmoptysis, as now recognised by many, cannot be said to have been noticed fairly by the French school. The mechanical effects of effused blood insufflated into the pulmonary tissue, and forming clots which lose colour and become encysted or undergo the changes of caseation, were no doubt often mistaken for tubercle.

Again, in criticising the French school of that period by the light of experience at the bedside, I fail to discover in their teaching the division of cases according to their progress and duration and according to the structure of lung invaded, and the changes of a fibroid nature undergone. This, I hold, to be entirely due to the modern English school. In Laennec's time a cavity in the lung meant the third stage, the final consummation of the disease, the almost immediate death of the patient, and the abandonment of all hope. We now sit down to treat cases of cavity, to promote their shrinking, to diminish their secretion, to attack them surgically and drain them, and some of the most prolonged instances of invalid life with which I am acquainted are in persons with a single cavity in the lung. I had one such case under my notice for thirty years, many for periods of ten and fifteen years; and I have no doubt that the experience of all of us will bear out this statement.

Again, the whole series of chronic changes in lung tissue which have been called fibroid, and in which the lung is condensed and contracted and fresh fibroid tissues developed throughout its structure, extending in bands from the thickened pleura, closing up old cavities, strangling its bloodvessels, and leaving, in fact, only bronchial tubes which undergo dilatation, this condition, which supervenes more or less in every case of chronic phthisis, and which often prolongs life indefinitely after the patient has undergone thickening of the lung, softening of tuberculous or inflammatory deposit and cavity, had not been described till modern English observers depicted it.

In contrasting more recent views and observations with those of the Laennec period, there is one of surpassing importance which seems to pervade the theories of all lung affections, and its consideration leads us to review the modern German pathology. There was so much of form, consistency, and precision in the French doctrines. It was so convenient to have found one single element, tubercle, with definite form, and history which underwent changes uniform and calculable, to each of which a stage of disease might be assigned, and from which the duration and result might be calculated, that it is easy to see now why it was accepted both by pathologist and practitioner. To the former it was a concrete idea, a unique morbid product, recognisable by its history and its appearance; it had a definite life or underwent changes, sooner or later, which converted it either into

cheesy or chalky matters, and if a new crop appeared a like process could be predicted; while to the practitioner it was also a definite quantity; he could explain it to his patients' friends, and appear to be precise where, perhaps, he was not quite true! But to the whole profession, and to the public, its very precision and the known and invariable course which tubercle follows when once established in the lung, stamped it as incurable and hopeless. Now, this state of things was the death of all progress in medical knowledge and the stagnation of all hope of a remedy. The very precision with which the malady was known rendered investigation useless and advances impossible. It will be in our memory, however, that out of this hopeless mass of cases, all of one gloomy aspect, there stood out certain ones which refused to follow the given course to death, in whom, if there were tubercle, it neither killed nor prostrated them. Persons were known to to live for years with cavity in one lung, and eventually, perhaps, to die of something else. Was it, then, possible that if this tubercle always runs a certain course there may not be other morbid products in the lung giving rise to the symptoms and signs of phthisis, which run a different course, some of which may tend even to recovery, and others simply to alter lung structure, but not to destroy it? I doubt not but that some such reasoning as this struck anxious observers who were sick of regarding the sphinx of phthisis, and, unable to answer its questions or account for all its phases on the old French theory, were not content to be absorbed by the problem, but rather received a new impulse towards its solution. The modern German mind, pretty commonly in opposition to the French, rushed at once to the conclusion that if there be such a thing as tubercle its presence was only an occasional result, and not a primary cause of phthisis. Tuberculosis is a danger incurred by the phthisical, but the disease is seldom initiated by it. All Laennec's teaching was wrong. Tubercle was not a new growth of specific nature which formed the essence, so to speak, of phthisis. The cheesy transformation so commonly found in consumptive lungs did not result from tubercle; they might be due to many causes, but chiefly to inflammatory products. That bronchial, peribronchial and pneumonic deposits often pass for tubercle; that the miliary form is the only tubercle; that those masses of infiltrated lung which Laennec called "stuffed" with tubercle are really masses of inflammatory products, the result of catarrhal pneumonia; that in many cases there is not a single tubercle in phthisical lungs. Then as to the origin of the disease, Laennec had been precise in assigning it to a constitutional cause; it never arose out of acute or chronic pneumonia; hæmoptysis is never a cause, though a frequent result, of phthisis. It never arose out of a catarrh or neglected cold, a bronchitis developing phthisis being not a primary genuine cold, but catarrh caused by irritation of the lung from already existing tubercle. His mistake was not that tubercle is a new growth, but that condensations of lung which have quite a different origin are also products of a development of tubercle. In enunciating these startling propositions the well-known German, Niemeyer, naïvely remarks that "pathological anatomy is in advance of clinical medicine." Well for its truth if it be not sometimes in opposition to it! In estimating the influence of the various theories of phthisis on its treatment, I shall have occasion to call your attention further on to this opposition in views, and to ask you whether, in your observation, phthisis arises from neglected colds, or whether the catarrhal symptoms have become developed in the course of the phthisis?

BELFAST HOSPITAL FOR SICK CHILDREN.—During the past ten years 2702 patients were admitted to the wards, while more than 62,000 cases were treated at the dispensary attached to the hospital. The income for the past year was £800, and the expenditure about £900, leaving a balance in hand of £760. Within the last few weeks Dr. Brice Smyth, for many years attached to the hospital, has resigned, and has been appointed consulting physician. The medical staff were heretofore appointed permanently, but this rule has been modified, limiting the appointment to four years, the appointments to be so arranged that a vacancy shall occur in each year for a physician and surgeon alternately; the retiring officers, however, are eligible for re-election. During the past year nearly forty senior students attended the clinical practice of the hospital, a circumstance worth recording, inasmuch as no hospital confined to the treatment of the diseases of children has been recognised by the Royal University of Ireland.

Clinical Lecture
ON
A RAPIDLY SUCCESSFUL TREATMENT OF ERYSIPELAS.

Delivered at Charing-cross Hospital,

BY RICHARD BARWELL, F.R.C.S.,
SENIOR SURGEON TO THE HOSPITAL.

GENTLEMEN,—We are at this institution fortunate in being almost entirely free from those diseases which have been called "hospital plagues"—pyæmia and erysipelas. Since this building has been reconstructed I have had to do with but one case of pyæmia originating in the wards. Some cases from without have been received, and those of you who have been with us long enough to remember those instances will also remember that the disease was not communicated to any other patient. Within the last two months I have had three cases of erysipelas here and two elsewhere, the treatment of which has been peculiar, while its very rapid success must cause much thought and consideration upon the relationship between its *modus operandi* and the morbid cause of erysipelas. I will shortly relate these cases, only premising that the plan I adopted in Case 1 is not that to which I desire to direct your attention—it merely led me to it.

CASE 1. — Miss ——, aged thirteen, was brought to me in October, 1882, with a diseased metacarpal bone. I found a large portion of the shaft necrosed and the hand a good deal swollen. On Oct. 19th I removed the sequestrum (the greater portion of the shaft) through an incision a little under an inch and a half long. On the 23rd, a spot of erysipelas, with the usual dusky hue and hard boundary of cessation on the skin, appeared—not at the wound, but a little above the ulnar styloid process; this was rapidly spreading. I painted the part and surrounding healthy skin with glycerine, and dusted over it boracic acid, making a tolerably thick crust, directing that more be applied wherever it flaked off. The inflammation disappeared in nine days—viz., she was well on Nov. 1st. But during the treatment I found that the paste did not keep on well, becoming detached in flakes, and that where this detachment took place the inflammation did not clear up as elsewhere, although there was on the skin a considerable dusting of the antiseptic boracic acid. This led me to think of some more sticky material, and my memory reverted to twenty years ago, when I think it was Mr. French, then of Marlborough-street, who told me he used white lead paint. I confess I attached at the time little importance to the matter, and it had apparently faded from my memory. However, since the above case seemed to show that it was not the "germicide" drug, but the exclusion of air, which produced the benefit, I determined to try a thick coating of paint on the next occasion. As chance would have it, this soon occurred.

CASE 2. — George F——, aged six, had fallen, five days before I saw him, on some sharp object, cutting his knickerbocker stockings and inflicting a pretty deep wound over the patellar tendon; this had been poulticed. On Nov. 22nd, at 6.30 P.M., I was sent for to see the child. I found the wound dry and harsh-looking. Over the tendon of the biceps and in the popliteal space was an erysipelatous blush, with hard sharp edge and rather considerable swelling. The child was fretful, irritable, and evidently in pain; tongue rather foul; temperature 103·2°; pulse 117. I sent for a pound of white lead paint, and painted the whole part inflamed and a little beyond, leaving out the wound, which was dressed by pressing into it a little cotton-wool soaked in a 5 per cent. solution of boroglyceride. Two grains of grey powder and five of rhubarb to be given at once. — 23rd (9.30 A.M.): About three-quarters of an hour after I left the child had become quiet, and asked for some bread-and-butter, which with a cup of milk was given; he then fell asleep and passed an excellent night. Bowels have not acted. Temperature 99·7°; pulse 90. Where in a few places the paint had cracked it was renewed. There is nothing more to remark in the case. The temperature became normal the next evening, and did not again rise. In seven days the epidermis was

desquamating, bringing away the paint gradually and in patches.

CASE 3.—George F——, aged thirty-nine, was in the hospital with a fractured tibia. On the outer side of the leg was a wound, which did not communicate with the fracture. On Dec. 12th, having been in the hospital five weeks, he had some shivering, and his temperature rose to 101·8°. On the next morning erysipelas was found in the neighbourhood of the wound; the part invaded was at that time about two inches and a half in diameter. On the 14th, when I saw the man, I found him undergoing a severe attack of cutaneous erysipelas, which by this time occupied the whole leg, but did not extend above the knee. He said he was in considerable pain, and that his leg felt as if it was on a slow fire. Tongue slightly furred; temperature 102·1°; pulse 108. He had already been ordered a purge. I directed his limb to be coated with white lead paint. On the 15th he told me that in half an hour after this application the pain entirely ceased. Temperature normal; pulse 98. In this case my then house-surgeon misunderstood my wishes and removed the paint with turpentine. I saw him the same afternoon, and ordered its reapplication, as the skin, either from the action of the turpentine or by non-cessation of the disease, was a little red. He did unremittingly well.

CASE 4.—Jane M'K——, aged five, has pathologic dislocation of the hip, with necrosis about the head and neck of the femur. The sequestra had been removed, and a drain through to the back of the thigh established.—Dec. 19th: She had shivering and vomiting, with a temperature of 103·6°. —21st: Erysipelas[1] of the thigh and buttock; the whole part painted. In the evening the temperature was 99·4°. She went on perfectly well. In eight days the paint was peeling off, and the skin quite normal.

CASE 5.—Robert L——, aged thirty, received a scalp wound over the lambdoid suture of the right side on December 26th. He was treated as an out-patient. On Jan. 15th he came back with severe erysipelas of head and face, which appears to have been going on some days. A purge was ordered.—16th: I found him with his head and face wrapped in absorbent cotton-wool. This was removed. His hair had been already cut from both head and face. Both were much swollen, the eyelids were so large that they could hardly be parted sufficiently to see the eye, the lips and the alæ nasi also were generally swollen. Temperature 103·8°, pulse 114. Complains of much pain. Ordered to be painted; no other remedy to be used.—17th: Mr. Wyborn (house-surgeon) found before painting some boggy patches on the scalp; these he punctured, evacuating pus. I directed that the head as well as the face be now painted. The man, however, is much better, the temperature lower. He is free from pain.—18th: The patient appears convalescent, his temperature is normal, his pulse steady (98), and he is desirous of more food. The man assured me that within half an hour of the application the previous severe pain entirely disappeared.—22nd: Patient very anxious to go out, but I keep him a day or two that the paint may come from the hair.

The temperature chart ran thus:—

	Morning.	Evening.
January 16th	103·8°	102·1°*
,, 17th	99·8	100·2
,, 18th	99·9	98·0
,, 19th	97·7	97·9
,, 20th	96·6	97·1

* Between these times paint applied.

And so on, the thermometer never rising again beyond 97·3°. I do not know why the temperature was so low, unless it was a personal peculiarity; the man was certainly not feeble.

These cases[2] are, I think, sufficient to show that a very great effect is produced upon erysipelas and its congeners by covering the surface with white lead paint. This is, I believe, entirely due to exclusion of air; the lead of that compound is in an insoluble condition; nor do I believe that the inflamed skin is in a state to absorb any material applied on its surface; by the time that it has recovered the lead is separated from the living tissue by a tolerably thick layer of desquamated and dead epidermis.[3] Moreover, lead as a solution of the acetate has been applied from a very early period, and as far as I know without any appreciable benefit to erysipelas.

Now, gentlemen, I began this lecture by speaking of erysipelas as one of the so-called hospital plagues; it has long been known both in an endemic and epidemic form. Since the germ theory of disease has been propounded this has been considered, by those who accept in full that hypothesis, to be a typical germ-produced disease. It certainly comports itself after that fashion. Nor need I insist upon all the evidence to be found in every medical and surgical work that erysipelas is a blood disease, not merely a local cutaneous inflammation, but an infection by putrescent or other morbid poison of the whole system; that in this particular medical and surgical erysipelas do not differ, although it is certain that the idiopathic form of the malady very often begins in the fauces, while the traumatic variety has a tendency to commence in or near the wound; but that this marks not any difference in the sort or action of poison, but only a diversity in its place of entrance. And yet here, in a number of well marked cases, you see this disease yield to a mere local application—to simple occlusion of air; yielding, that is to say, not hesitatingly or doubtfully, but at once and unmistakably. I will not now take up your time (for clinical teaching should concern itself not with speculations, but with facts) by attempting to show you how this may perhaps happen, but must nevertheless tell you that I am by no means prepared to discard the blood-poison etiology of erysipelas; yet why a general systemic disease should be thus cured by local treatment is very curious, and of course many more trials and successes must be realised before so strange a doctrine can be accepted. Fortunately our opportunities of seeing erysipelas are very few; it may be months before any, even slight, cases occur. I hope other surgeons may soon report to us their experience in this matter.[4]

P.S.—Since the above lecture has been in the printer's hands, I have had, through the kindness of Dr. Bruce, the opportunity of treating a case of idiopathic erysipelas, with equally rapid success. A lad, aged nineteen, presented himself on Feb. 16th, with erysipelas of the face, in its early stage. The fauces were much inflamed, red, and swollen; the inflammation passing forwards along the nares, and up the lacrymal duct, had spread to the ala nasi, as also to the lower eyelid, which were red, hard, swollen, and still were enlarging. Temperature 102·4°; pulse 120. He was sent to bed, a purge was administered, and his face was painted with white lead paint. This application was renewed twice; no other remedy was used. In six days the lad was well. Mr. Wyborn was good enough to examine the urine. It was quite normal. Tested with hydrochloric and with hydrosulphuric acid it gave no precipitate, showing the absence of lead.

[1] The inflammation, though it included the skin, was evidently also deep; the disease might be called either cellulitis or phlegmonous erysipelas.

[2] A girl at the Cripples' Home, affected with erythema nodosum in unusually large blotches, was treated in the same way with like benefit and similar mitigation of pain.

REMARKS QUESTIONING THE PROPRIETY OF THE INVERSION OF PATIENTS IN THE CHLOROFORM SYNCOPE.

BY EBEN. WATSON, M.D.,
SENIOR SURGEON TO THE GLASGOW ROYAL INFIRMARY.

SYNCOPE, or sudden failure of the heart's action, is the chief source of danger to the patient, and of anxiety and difficulty to the surgeon, during the administration of chloroform. It is well known that this may take place before suspension of the respiration, or the two phenomena may occur almost simultaneously, the latter being their more frequent relation to one another.

Now, I wish very briefly to call attention to the actual

[3] Dr. Mitchell Bruce, to whom I showed the last of the above cases has been good enough to call my attention to the following passage in Wood's Therapeutics, p. 39: "Plumbi carbonas as white paint is a most efficacious dressing for fresh burns. Care must be taken when a large surface is involved, as lead colic has been caused by its absorption."

[4] White lead paint, obtainable at any oil and colour shop, is made by rubbing up the carbonate of lead with linseed oil, and for the purpose in question, as indeed also for ordinary use, is mixed with turpentine as a "drier." When applied over hairy parts the surface should be shaved, or at least the hair cut very close. When growth takes place the dried paint is pushed off in little patches, and if patience be taken for two or three days, until the hair is long enough (about one-tenth of an inch) to admit between the skin and the little flake of paint the blade of a pair of scissors, removal is easy and painless.

state of the heart and lungs in the above condition of the patient, a condition which, in short, is syncopal asphyxia. In this state we have long had abundant evidence to prove that the right side of the heart is full of blood, and that the lungs are congested. I shall not here inquire which event is the primary one. It could easily be proved that the two events are differently related in different cases, but that in all cases the one increases the other. A feeble heart does not send the blood with sufficient force through the lungs, and so permits congestion to take place in them; while the lungs, if congested from any cause, resist the influx of blood from the heart, and therefore cause it to be gorged on the right side; and this engorgement, again, greatly impedes and enfeebles the action of the heart. As might *a priori* have been expected, the same condition of the heart and lungs has been found by all experimenters with chloroform. Thus Professor M'Kendrick and his coadjutors, in their report to the British Medical Association (p. 30), writes as follows: "One of the most striking effects of anæsthetic agents is the engorgement of the right side of the heart and large veins near it. This has been directly observed by the committee, and is well known." They then proceed to discuss the share taken in this engorgement by the heart itself, which is known to be enfeebled by anæsthetics, especially chloroform, and by certain changes in the lungs which they found to be much congested in all cases of deep chloroformisation. Into this discussion we need not at present follow them; I only wish to direct attention to the fact that in a state of deep anæsthesia from inhalation of chloroform there are always coexistent (1) a feebly acting heart, (2) an engorged state of the right side of the heart, and (3) a congested state of the lungs. In the suddenly alarming cases where syncope occurs it cannot be doubted that all these conditions are exaggerated in an extreme degree, and the object of treatment certainly ought to be the restoration of the organs to a normal state as speedily as possible.

Now in all writings and text-books on this subject one of the recommendations to the surgeon, in order to accomplish this end, is to invert the body of the patient by raising his lower extremities above the level of the head and the upper part of the body. This practice is said to have had its origin in an experiment performed by Nélaton, and it generally goes by his name. His great character as a surgeon has given it a wide currency, a currency which, so far as I know, was not warranted by either the accuracy or the conclusiveness of his experiment. It is now blindly followed, I think, without consideration of the effect of the proceeding, or with very loose notions of its effect. Thus, in an otherwise good paper by Mr. Samuel Osborn, chloroformist to St. Thomas's Hospital, I find these words (p. 15):—"Inversion of the body should be always tried if stoppage of the heart's action occur. The head being lowered and the legs elevated, the blood is sent to the upper part of the body." Of course it can only be the blood in the veins of the lower part which can be so passed to the upper part of the body, and everyone knows that it must pass first through the right side of the heart, and then through the lungs, before it can be sent to the upper part of the body. But the evil against which we are supposed to be contending is that there is too much blood already in the right side of the heart and lungs, and that it cannot get on. To send more venous blood to these organs just then is surely to aggravate the mischief, especially where the heart's force is greatly diminished, and the respiration is inefficiently performed. Even although the latter function be carried on artificially it cannot be sufficient of itself to renew the pulmonary circulation while the heart remains feeble, and one great cause of its continuing feeble is the weight and paralysing influence of engorgement of its right cavities. It seems to me, then, that this inversion of the body has been recommended in these cases without due consideration, and that it is not suitable to them. If, in spite of the valves in the veins, the venous blood from the neck and arms did get to the brain by depressing the head and neck, as is sometimes done, it could only deepen the coma and increase the evil from the side of the nerve centres; and, as I have shown above, the venous blood from the lower part of the body, if forced upon that already filling the right side of the heart and lungs, could only embarrass the circulation, and still farther add to the danger of the patient.

The best position for such patients, as for all in syncope, is the prone position, because in it a feeble heart has least hindrance to its work in sending, not venous blood to the lungs, but arterial blood, both to its own substance and to the brain. No doubt these two results of cardiac action take place simultaneously, but it is on the latter—viz., the sending forth of arterial blood, that our hopes for the patient mainly depend, and the importance of artificial respiration in assisting this is obvious to all who rightly consider the matter. The *prone position, and not more than prone*, along with artificial respiration, is that which favours most the reinforcement of the heart, and this is the one object of hope in all such cases. But the practice of inversion of the body has been so constantly recommended that no one at present thinks he does his duty to his patient unless he has recourse to it, and I believe some operating tables are now made with a lever so as to enable the surgeon readily to invert the table and the patient upon it. Now this, I submit, is both an unnecessary complication of the table and a practice really hurtful to the patient, because in so far as it succeeds in sending venous blood of the lower part of the body to the heart it tends to embarrass and weaken that organ, already labouring under influences formerly explained, against which the best remedy actually is to diminish the blood, which stagnates in the right heart and lungs; and this we attempt to do by artificial respiration with the patient in the prone position more physiologically, and therefore more hopefully, than by inversion.

I have no doubt on several occasions seen inversion performed in cases where, during chloroformisation, there was a temporary cessation of the pulse or the respiration or both—in fact, where syncope had occurred and in which recovery took place; but I believe the recovery was in spite of, rather than because of, the inversion of the patient. In fully as many cases of the kind I have not followed this practice, and yet the recovery was as rapid and as complete as in the others. It is in no spirit of boasting, but rather of thankfulness, that I state, notwithstanding my long experience of chloroform, now extending to more than twenty years of hospital and private practice, I have never yet seen a patient die of that anæsthetic.

In all cases where I have been present, the result has been uniformly fortunate, whether Nélaton's method was used or not, and therefore it may perhaps be said that my experience proves nothing one way or other; but undoubtedly there have been a good many, only too many, unfortunate cases, both recorded and unrecorded, in which the patients died in the chloroform syncope, and I believe in almost all of them inversion was performed, but did no good; and, if my view of the matter be correct, it rather did harm. The surgeons in these cases certainly did their duty in performing inversion, because it is at present the recognised practice; but now, when it is asserted to be contrary to sound views of the physiology and pathology of the case, it may cease to be any longer recommended or practised. At all events, it will surely come to be more accurately discussed, and either established on a sound basis, if that be possible, or authoritatively discarded altogether, as I think it ought to be. With this object I now write, and appeal to my surgical brethren, especially to those of them who can look at the matter from the side of physiology. If I am convinced that my opinion is wrong, I shall be very ready to confess it; but if I am right, I may have assisted in simplifying the treatment of some very alarming cases, in which one would wish to do everything that is possible towards their recovery.

Glasgow.

ON A CASE OF

TOTAL SUPPRESSION OF URINE LASTING SEVENTY-FIVE HOURS; RECOVERY WITHOUT A BAD SYMPTOM.

BY DENIS D. DONOVAN, L.R.C.P. ED., &c.,
ASSISTANT PHYSICIAN, NORTH INFIRMARY, CORK.

ON Wednesday evening, Dec. 27th, I was asked to visit J. C——, who was said to be suffering from retention of urine, not having passed any water for twenty-four hours previously.

The patient, who was an engine-driver by occupation, forty-two years of age, married, and had four healthy children, gave me the following history:—"I have always been a healthy and vigorous man, accustomed to take plenty of exercise, and never had any sickness as long as I can

remember, with the exception of an attack of syphilis about twenty years since, which gave me very little trouble. About three years ago a rash came out on my body, some of which still remains." This was found to be psoriasis, patches of which were found on his stomach, legs, and arms. "Eight months ago I was treated for dyspepsia, which was probably produced by alcohol (which I have been in the habit of taking, but not to any great excess), but more likely came on from a shock caused by a break down to my engine. I do not feel so lively in myself since that happened, but there is no actual impairment in my health. I had been taking whisky rather freely for the past four or five days and not eating much. On the morning of the 26th December I felt my water a little troublesome, having to pass it more frequently, and very little coming at a time. The last I passed was at one o'clock P.M. on that day, on the journey down to Cork: about a wineglassful of a very high colour. Since then I have made several ineffectual attempts to pass water, though not feeling any particular desire to do so." He had taken a teaspoonful of spirits of nitre in the evening, to try to start the water, and had a glass of punch on going to bed, to make him sleep, but did not succeed with either. His bowels had not been opened for three days. When I saw him he made no complaint of being sick in any way; he had no headache or pain in his back—the only trouble he had was the inability to pass water, and a consequent wakefulness. His expression was good, tongue furred and slightly red at the tip, pulse 80, skin dry, temperature normal, no fulness or pain on pressure over the bladder or kidneys. I passed a No. 8 gum elastic catheter, which produced a slight sensation of nausea on going through the urethra, and of pain in the bladder. No water came—not even was a drop detected in the eye of the instrument. When it was withdrawn, he had a slight desire to urinate, but without success. I ordered him a mixture of jalap, sulphate of magnesia, and senna, with cream of tartar and mucilaginous drinks.—Dec. 28th, 11 A.M.: Slept about an hour during the night, and vomited once some sour green matter; bowels opened twice, solid discharges; no water. Asked me not to pass the catheter as he felt there was no water in his bladder; feeling a little thirsty but by no means uncomfortable. Ordered to continue his mixture and have his loins poulticed with linseed meal, the poultices to be made with infusion of digitalis and applied every four hours. 6 P.M.: Skin dry; no appearance of urine; bowels acted once loosely; no vomiting. Ordered a jalap draught and a mixture containing squills, digitalis, and spirits of nitre; to have a hot bath and be wrapped in blankets.—29th, 9 A.M.: Slept for two hours. Skin acted well after the bath. No water passed for sixty-eight hours. Feels quite well; has no headache or pain in his back; no hiccough or eructations; stomach retentive; pupils normal; pulse 80; tongue somewhat cleaner; thirst continuing; no urinous odour from skin or breath. Says he would be all right if his kidneys acted. I passed a catheter into the bladder, which I found very much contracted and perfectly empty. The same fruitless desire to pass water came on when the catheter was withdrawn. Ordered to sit in a tub of hot water for an hour, to be dry cupped over the loins, the poultices and mixtures to be continued, and, as his thirst was troublesome, I gave him permission to drink a couple of pints of warm ale. At 1 o'clock P.M. the patient was in the same condition; felt somewhat refreshed after the bath and had taken the ale with great relish. At 4 o'clock P.M., after seventy-five hours' total suppression, about two ounces of high-coloured urine was voided, giving him a scalding sensation in the urethra. At 5 P.M. his bowels acted freely, and shortly after he passed about twelve ounces of high-coloured urine, lighter in shade than that which he had previously passed, having a sp. gr. of 1010, and not containing a trace of albumen. From that time the secretion became perfectly re-established. He complained of being rather weak in the morning, was kept in bed for four days on fluid diet, and in four days afterwards was on duty, feeling as well as ever. I regret I did not make a microscopical examination of the urine that was first passed, but it was thrown away before I could do so.

Total suppression of urine is of very rare occurrence, and comes on most frequently as the attendant or result of other diseases, but in this instance the suppression must, I think, be considered as the disease itself, and a question arises as to the cause of it. Was it from obstruction? or did it proceed from renal congestion? If due to obstruction in the ureters or pelves of the kidneys, we would have had symptoms of nephralgia, the passage of bloody urine, calculi, &c., which were absent, and to produce complete suppression from obstruction both sides should be simultaneously blocked, a very unlikely occurrence, or we should take for granted the absence, or previous destruction from disease, of one or other of the kidneys, which we have no ground for doing in this case. I am inclined to consider it one of those rare idiopathic cases described by Sir Henry Halford as paralysis of the kidneys, depending most likely on extreme vascular congestion of those organs, overwhelming, as it were, or paralysing their secreting powers, and due here most likely to alcoholic irritation and exposure to cold as an exciting cause. I shall be glad to learn if any of the readers of THE LANCET have met with a similar case.

Cork.

TRACTION IN HIP DISEASE, AND THE CONSEQUENCES THAT MAY FOLLOW.

BY JOHN JONES, M.R.C.S.

Two years have now elapsed since my former communication on this rare complication appeared in THE LANCET (Feb. 12th, 1881), and the time has now arrived when it may not be inopportune to add some further particulars as to the sequel. In any remarks I may have to make, I trust it may not be inferred that I have any wish to detract from the value of traction *per se* in hip disease. On the contrary, in witnessing it for the first time in this case, I was much struck with its simplicity and its adaptation to the purpose for which it was intended. To account for the novelty to me of the traction method, I should add that I retired in 1865, after thirty-eight years' experience of a very laborious country practice (probably before the introduction of the traction method), and I confess from that time I have taken but little interest in what has been going on in the medical world.

The patient at the present time is in excellent health, though pallid (as he ever has been), and backward in his physical development, as a consequence, it may be, of extraordinary mental aptitude. The lameness may be approximately estimated from a shortening in the aggregate of two inches, or but little less than under the old system of treatment. He is equal to any amount of walking exercise with comparative ease, and has no pain or uneasiness in the act or consequent upon it.

I will here give the comparative measurements of the right and left limbs in inches:—

	RIGHT. Inches.	LEFT. Inches.
From the anterior superior process of the ilium to the extreme point of the malleolus internus	31	33
From the same point of the ilium to the centre of the patella	17½	18
From the centre of the patella to the extreme point of the malleolus ...	13½	15
The fibulæ are precisely the same length on either side—viz., ...	14	14

From these measurements it will be seen that three-fourths of the shortening is below the knee, and due to the separation—a striking example of the arrest of the growth of a bone on being separated from its epiphysis. As to the immediate cause of the separation, in the absence of injury or disease to account for it, I think there can be but one opinion, and however rare or remote such a result as happened in this case may appear to be, yet it clearly proves it to be within the range of possibility.

There may have been less power of resistance in the tissues in this case than in others of a kindred idiosyncrasy, but there was nothing in the aspect of the patient to indicate this. Under these circumstances the question suggests itself whether all the advantages of traction might not be equally secured by placing the fulcrum on the femur, immediately above the condyles, instead of the ankle; it might be thought advisable also in such a case to attach the foot to the cord to prevent inversion.

I have reason to believe that the separation took place at a very early stage of the treatment, for on my first undertaking the charge of the case (owing to the serious illness of the gentleman in attendance) which was in Nov. 1879, just twelve months after the patient had been under treatment, I noticed an enlargement at the head of the fibula. I was perplexed, and feared there might be some mischief going on in the tibia, but there was neither heat, swelling,

pain, nor tenderness, and the attachments of the bone were as firm as ever. The discovery of the separation revealed the mystery, which was nothing more than the continued growth of the fibula, while the tibia remained *in statu quo*.

In my former account I said that I treated the lesion as "a common simple fracture." This I abandoned after a few weeks, and adopted the following more promising method. I had a sandal made for the foot, and a collar and buckle for the femur, just above the condyles. These two points were connected by straps and buckles, which on being drawn up tightly pressed the separated parts together. The parts being so surrounded by ligaments and their aponeurotic expansions, I did not think it necessary to encumber the patient with any bandages against the possibility of a lateral displacement. This method proved highly satisfactory, and there is every reason to think that a perfect anastomosis has been established, as there has been no appreciable shortening of the tibia for the last year and a half, and the enlargement at the head of the fibula remains *in statu quo* (in the opinion of the patient rather diminishing). Lastly, the question suggests itself, Is this case (as it might appear to be from the strong protest of so eminent an authority recorded in my former history of this case) unique? I candidly confess that I do not think so, for reasons that appear in the history of this case alone. It is an interesting question, and one that ought and might very easily be determined, if gentlemen (of whom, no doubt, there are many) who have the means of doing so, would measure the relative length of the crura of a few who have undergone the traction treatment, and would make the result of their inquiries known through the medium of THE LANCET.

Lewes.

A NEW DRAINAGE-TUBE.

BY J. WARD COUSINS, M.D. LOND., F.R.C.S.,
SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL.

THE ordinary india-rubber drainage-tube is often difficult to fix securely, and it is liable to accidentally slip into deep cavities. Occasionally it has been lost in a wound, which has of course remained unhealed until the foreign body has been detected and removed. In empyema the tube is generally introduced two or three inches into the chest, and thus gets blocked up at the bottom of the abscess by the ascent of the diaphragm. At the same time the tube offers very little obstruction to the gradual contraction of the intercostal incision. The drainage-tube represented in the engraving (Fig. 1) is intended by a very simple contrivance to remove many of the disadvantages of the ordinary instrument. It consists of an elastic tube enclosed at one end in an elastic air-pad, to which a fine tube is attached, and by this the pad can be inflated to the required extent. The inflating-tube is then securely closed with a knot or ligature. (See Figs. 2 and 3.) The open orifice of the drainage-tube projects only just within the cavity to be drained, a matter to many surgeons of great practical importance. It is especially serviceable in cases of empyema treated by free incision, for when the pad is inflated it becomes fixed in position between the ribs. The pad, moreover, forms an elastic wedge which prevents the escape of fluid around the tube, and exerts a comfortable and even pressure in sustaining the open and dilated condition of the incision. The tube must be introduced with the pad in a state of collapse, and after insertion it can be rendered persistently patent and fixed by inflation. Similar elastic pads, containing two tubes, can be conveniently used for the treatment of empyema by irrigation. The drainage-tube is made in several sizes by Messrs. Arnold and Sons, of West Smithfield.

ON CERUMINOUS ACCUMULATIONS IN THE AUDITORY MEATUS.

BY J. MACKENZIE BOOTH, M.A., M.B.,
PHYSICIAN TO THE ABERDEEN GENERAL DISPENSARY.

AMONG the cases occurring in the practice of those who devote attention to the treatment of aural disease, few are more common or generally regarded with less interest than accumulations of cerumen in the external auditory meatus; and this is doubtless owing to the comparative ease with which they are removed, and along with them the deafness, tinnitus, vertigo, &c., with which they are often associated. Yet their etiology, as far as I am aware, is not well ascertained. In the text-books on diseases of the ear little is said on the subject further than that these accumulations often take place rapidly, and that they result from over-activity of the ceruminous glands from irritation of the external meatus by means of towel-ends &c., and often coexist with conditions of copious perspiration, as in the case of the labouring classes.

In the ear and throat clinic of the General Dispensary here three cases bearing on this point have recently come under my notice. They were those of three men of middle age, who worked as brass finishers in the same workroom, in all of whom the accumulation took place about the same time, and in whom the right ear was that chiefly affected. The first came up at the end of December, 1882, complaining of deafness and discomfort in his right ear. On examination the watch could only be heard on contact on the right side, and on the left the hearing was also somewhat impaired. The mirror and speculum revealed a ceruminous plug in both meati, that on the right being the larger, and in great part softer than the other. The use of the syringe soon freed him from his unpleasant symptoms.

A fortnight later No. 2 appeared, complaining of deafness, tinnitus, and uneasy sensations in his right ear. In his case, too, the watch was only heard on contact on the right side, while hearing on the left side was normal, and a ceruminous mass was syringed out, giving him relief. The mass, which came away in pieces, I noticed had green specks in its substance. The left meatus was normal.

In the end of January, 1883, the only remaining workman in the same shop, No. 3, presented himself with deafness and tinnitus in his right ear and occasional giddiness. As in the case of the others, the unpleasant symptoms were disposed of by the expulsion of a large quantity of ceruminous débris intermingled with greenish specks. The fact of this being the third case from the same place within a short space of time made me examine the patient more carefully, and also the quondam contents of his meatus. The naked eye readily detected small greenish specks of "verdigris," and under the microscope a low magnifying power showed a number of fine metallic particles interspersed through the ceruminous masses.

No. 3 informed me that about three months previously they (the three men mentioned above) had had a good deal of extra work on hand, that they had all perspired copiously, and all suffered from catarrh about the same time. He also stated that their deaf side was the one turned towards their work, which in the process of sand-papering produced a very fine cloud of brass particles.

In these cases the entrance of the brass particles into the ear must have played some part in causing the accumulation, since in two of the cases at least the left ear was free from plugging. The small hard plug in the left ear of No. 1 was probably of much longer standing than the others, which were of larger size and softer consistence. The left ear thus had evidently escaped from not being so much exposed to the metallic shower, otherwise the two ears were under similar conditions. But the entrance of the brass particles alone would not have been sufficient to cause the formation of these plugs, else they would have occurred much oftener in these men working constantly at their trade. All three patients had been working harder than usual about three months previously, and from this they dated the uncomfortable feeling in their ears and the tendency to pick them. This corresponds with the observations of Burnett[1] and others that rapid secretion and accumulation of cerumen are generally concomitant with increased activity of the

[1] Treatise on the Ear, by C. H. Burnett, pp. 289, 290.

sweat glands. In the above cases this, however, would not yet have been sufficient to account for the accumulation, as these men were often very busy and often perspired profusely. But at the same time all three had complained of more or less catarrh. And to this along with the foregoing conditions, I would attribute the right-sided accumulations of cerumen. In the treatment of ear cases I have frequently found rapid accumulations of ear-wax following a nasal catarrh, there being only in some of these marked implication of the tympanum or Eustachian tube. The intimate relation of the vascular supply of the meatus to that of the naso-pharyngeal mucous membrane through the various branches of the internal maxillary artery, would lead us to expect increased activity of the ceruminous glands along with a similar condition of the mucous glands of the naso-pharynx, and this I believe, from the observation of many such cases, to be a very common starting-point of ceruminous accumulations in the auditory meatus.

Aberdeen.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

ANEURISM OF THE FEMORAL ARTERY IN HUNTER'S CANAL; DIGITAL COMPRESSION FOR TWENTY-FOUR HOURS; CURE.

(Under the care of Sir W. MAC CORMAC.)

FOR the following notes we are indebted to Mr. White, house-surgeon.

Charles C——, aged twenty-nine, a china-packer, was admitted on December 5th, 1882. The patient was a well-made, broad-shouldered man, of dark complexion, in height 6 ft. 1 in., and thirty years of age. He had lived an active life. From 1870 to 1875 he was a private in the Life Guards; in 1875 he was engaged in the Canadian police, and in 1879 he returned to this country, and till within the last year he had followed the occupation of a packer. In 1874 he had a chancre, which was followed in a short time by a rash over his body, sore-throat, and pains in the shins; according to patient he had been treated, but to what extent was not ascertainable. His previous health had been good, and he had not had rheumatism. It was about a year before admission that his health gave way, and he was advised on account of heart disease to rest in bed, where he remained up to admission. While lying in bed, about a month before entering the hospital, he first noticed a pulsating swelling of small size in the lower part of the left thigh.

When examined on admission, the patient was found to have a fusiform swelling, painful to the touch, about the size of a large lemon, and measuring three inches from above downwards. Distensile pulsation was well marked. The tumour occupied the lower third of Hunter's canal; it was fairly movable, and upon compression of the femoral artery all pulsation ceased, and the sac partially emptied. There was a well-marked bruit conducted down to the calf. The leg was warm, and the pulsation of the posterior tibial artery could be felt. The arteries were thickened; pulse 80, collapsing. The heart was enlarged, the apex beat being two inches below and two inches external to the nipple; there was a thrill at the apex; heart-sound to the right of sternum, a loud double murmur was heard. There were no symptoms of aneurism in the chest; urine normal; temperature 100°.

Dec. 12th: The patient having rested in bed for a few days upon low diet, his pulse fell to about 80 and his temperature to the normal. Digital compression of the femoral was maintained by relays of students selected from the hospital dressers, each to go on for a ten-minutes' spell, his successor to get his fingers on the artery, and to compress each time at a different place before the other relaxed his pressure. Compression was commenced at 8.30 A.M. At midnight the sac was nearly filled with clot, and the pulsation considerably diminished. There was still some pulsation to be felt in the posterior tibial artery. The compression was continued.—13th, 10 A.M.: A little more than twenty-four hours after the treatment was commenced the tumour was quite solid; no pulsation could be discovered in the sac nor in the tibial artery; the limb was warm. Compression was discontinued. The patient felt well. Several anastomosing vessels visibly pulsated around the knee.—16th: The patient well; limb warm; pulse 80; temperature 98°. No return of pulsation in the tumour, which is much more solid.—21st: Pulsation could for the first time be felt in the posterior tibial artery; no return in the sac; pulse 85; temperature 98·6°.

From this time until Jan. 5th, 1883, when the patient got up for the first time, all went well, and he was now up and about the ward, completely relieved of his clot.

The sac contracted to one-third its former size, became quite hard, and gave the patient no inconvenience. He has since left the hospital convalescent. The absence of any exciting cause is an interesting feature in this case. It affords, too, another instance of the satisfactory results obtainable by carefully applied digital pressure, even under, as in his case, circumstances not otherwise favourable.

RADCLIFFE INFIRMARY, OXFORD.

CASE OF EXTRA-UTERINE FŒTATION FOLLOWED BY THE EXPULSION OF FŒTAL BONES THROUGH THE BLADDER; PERMANENT UTERO-VESICAL FISTULA; REMARKS.

(Under the care of Mr. H. P. SYMONDS.)

FOR the following notes we are indebted to Mr. J. E. Hine, M.B., late resident medical officer.

Mrs. A——, aged forty, was admitted in August, 1880, with symptoms of stone in the bladder and with an extreme degree of cystitis. Her history was as follows: Menstruation began when she was thirteen, and has been regular till recently. She married at the age of sixteen. The first child was born alive ten months afterwards, at full time. This was followed at intervals of about two years by a miscarriage of twins at the fourth month; another miscarriage at the third month; then a child at full time, still living. Then another child, also living, and then another miscarriage. Twelve years ago, when pregnant four months, she had a fall which caused abortion, and was followed by inflammation of the womb. She says that a fully formed fœtus came away, together with something else which the nurse told her was "like a piece of flesh with a bone stuck in it." She had severe flooding and great pain in the abdomen both before and after the miscarriage, and was ill for three months. Ever since this illness she has menstruated through the bladder, the periods being regular and the flow normal in amount. For two years after the illness she had a constant discharge of matter from the bladder, and on several occasions for nine months from the time of the miscarriage she passed fœtal bones. One of these, she says, resembled a blade bone; others were long bones. The discharge of pus gradually ceased, and she was able for several years to get about as usual, her only trouble being the menstruation through the bladder, which often gave her pain through clots blocking up the urethra and causing retention. At the end of 1879 she had one day a sudden pain in the abdomen and stoppage of urine, followed shortly afterwards by the passage of two small stones, the size of peas, rough on the surface and hard. She went on quite well after this till June, 1880, when she had a repetition of the same symptoms, and passed, together with bloody urine, a bone about an inch long, which crumbled when she took it up. At the same time the discharge of pus recommenced. She came into the infirmary in August. On the 13th lithotrity was performed, and a few drachms of phosphatic material without any nucleus were removed. She was relieved by the operation. Two days later a sound was about to be passed into the bladder, when there was found emerging from the urethra a foreign body which proved to be a fœtal scapula of about the fourth month. The urethra was dilated and the bladder explored by the finger. A cavity was felt at the base of the bladder, but outside its walls, containing fragments. From this more fœtal bones were removed, but owing to considerable hæmorrhage the whole were not taken away. For a few days after more fœtal remains were passed with the urine, and in ten days the operation was repeated with similar result as before. After a third sitting no more fragments

could be felt and no more were passed. From time to time after the operation the patient had attacks of pain, due apparently to local inflammation. In October she was discharged, feeling quite well. By vaginal examination the uterus was found not very movable. In front of it a thick mass was felt between it and the bladder. The sound passed one inch and a half through the os uteri, and could be felt when the finger was in the bladder to be in the cavity at the base, in which the bones were. Since she left the infirmary, more than two years ago, she has had no more trouble. The sound now does not enter the bladder, the uterus is more movable, and the thickened mass has disappeared. She still menstruates through the bladder.

Remarks by Mr. SYMONDS.—From this history it will be seen that when in 1870 the patient had miscarriage at the fourth month she was delivered of a fœtus; yet from the date of this illness, which was accompanied with "inflammation of the womb," she passed fœtal bones from the bladder. This seems to indicate that there was a twin pregnancy, one fœtus being in the uterus, the other extra-uterine or in the wall of the uterus. The latter, ruptured by accident, inflamed and suppurated, eventually opening into the bladder, and leaving a fistulous communication between it and the uterus, by means of which menstruation takes place. The cavity went on suppurating till 1872, fœtal bones being passed from time to time. Then there was a long interval, and all the symptoms, except the menstrual, subsided till the end of 1879. All this time from some cause the suppuration began again, a few more bones coming away, till she entered the infirmary, and the cavity was cleaned out, and the source of the irritation thus removed. From the fact that the sound could be passed through the os into the bladder, but that the menstrual flow passed from the bladder only, it seems that the upper part of the uterus was cut off from the lower part by some inflammatory adhesions following the original disease. As this case is one of considerable rarity, I have thought it well to give the details at length.

ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES, NORTHAMPTON.

A CASE OF SUICIDE BY OXALIC ACID; NECROPSY; REMARKS.

(Under the care of Mr. J. BAYLEY, Medical Superintendent.)

FOR the report of the following case we are indebted to Mr. E. F. Cooper, assistant medical officer.

W. H S——, aged forty-seven, paper manufacturer, was admitted on Dec. 21st, 1882, suffering from (1) melancholia and (2) oxalic acid poisoning. From the statement of the friend who accompanied him, and from information subsequently received, it appeared that the patient had, a week or ten days previously, attempted to destroy himself by means of laudanum, and that on the day prior to his admission he had obtained at a neighbouring pharmacy two drachms of oxalic acid, with which he immediately proceeded to a refreshment-house and there swallowed in coffee. The chemist who supplied the poison was quickly on the spot and induced vomiting, the vomited matter, as he stated, causing blackening of the floor; carbonate of magnesia and demulcents were also administered. From the time of his admission the patient was depressed, and complained of pain in his back and abdomen, and was sick at intervals, until on Christmas evening respiration became very hurried and he died in the night, conscious to the last. The treatment consisted in the administration of milk, lime-water, and carbonate of magnesia, while, after the first day or two, beef-tea and custard-pudding were given in addition, together with three ounces of brandy per diem.

At the post-mortem examination, made on the requisition of the coroner by a gentleman unconnected with the hospital, the stomach was found to be intensely congested over a portion of its inner surface, and contained about a third of a pint of thick blood-stained fluid; the lower end of the œsophagus was in the same inflamed state; there was double pneumonia, with adhesions of the left pleura, and effusion into the right one.

Remarks.—The comparative smallness of the quantity of the poison taken is an interesting feature in the case. One drachm is recorded as having caused the death of a boy, aged sixteen, with which exception this is the smallest fatal dose of which I have found mention.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Debate on the Etiology of Scurvy.

(*Concluded from page 365.*)

SIR W. SMART had listened with great pleasure not only to the papers that had been read, but to the statements of those who had had experience of the disease. Although, as a naval officer, it had been his duty to acquaint himself with the literature of the subject, he had never seen scurvy except on the coast of Africa and in the Crimea. For, although he had charge of Haslar Hospital for four years and a half, he had never seen a case of scurvy there. An animal diet is of the highest importance in the prevention and treatment of scurvy. He had read in Churchill's voyages how eight Englishmen in 1630 were left without food on the coast of Greenland in the month of July. They remained there till the following May, having no vegetables, but subsisting on the animals they could kill. When rescued, in May, 1631, not one of those men had a symptom of scurvy. In Kane's expedition, where the men passed a winter upon the ice, no scurvy broke out; their food being composed of the animals they killed. It was not necessary to cite other instances after Dr. Rae's testimony on this point. He could only say that an animal diet would suffice for six months to ward off scurvy as well as a vegetable diet could. The men of the *Investigator*, although shut up for two winters and three summers, did not begin to suffer from scurvy until the third summer. They had been able to obtain animal food—reindeer, musk ox, and ptarmigan—in great abundance, and had subsisted on it. But in the second spring they began to find they would not get out for another year, and with the warm weather scurvy appeared. This instance showed that an animal diet was preventive of scurvy up to a certain point; moreover, mental despondency was added to the causes of the disease from which more than one died after the rescue. Sir John Ross in 1830–33 obtained a good deal of fish as well as animal food, and the amount of scurvy amongst his men was very small. The valuable and interesting paper by Mr. Neale not only raised the question of animal diet being antiscorbutic, but it proved the advantage of living in huts rather than on shipboard. He believed that men are kept too warm when confined to the ships, and that the heat and moisture are harmful. Parry in one of his voyages says that he considered damp and heat the principal causes of scurvy. Ross showed that in his hut men could bear a very low temperature, and Dr. Rae and Mr. Neale had borne this out in their experience. Therefore he believed that the prevailing system of making the ships a kind of hot stove in the arctic climates is a great mistake. Dr. Colan had told them what was the state of things on board the *Alert*, and he (Sir W. Smart) had always maintained that this was the reason why the men who went on the sledging expedition returned to the ship in a worse state of scurvy than if they had lived in a hut. The use of antiscorbutics was the only rational means of preventing or curing the disease; and if scurvy breaks out on board ship, if fresh meat or vegetables cannot be obtained, then lime-juice should be given; vegetables, of course, could not be got at the North Pole. During 150 years the importance of lime-juice had been fully proved. Vegetable food alone was not sufficient; scurvy broke out in a French vessel laden with citrons. Dr. Colan's suggestion that a shipload of sheep should be sent with every expedition was valuable; but why was not time for ships to stop in Smith's Sound allowed to permit of a sufficient supply of fresh meat being stored? — Dr. DE CHAUMONT said that he had no experience of scurvy in the arctic regions, but had met with it in the Crimea and in civil life. Mr. Neale's paper and Dr. Rae's remarks were very valuable as showing the importance of a diet of fresh meat. In the Crimea, in the spring of 1856, the men were left on one occasion fourteen days without fresh meat, and scurvy began to appear among them. There was a tolerable supply of vegetables, chiefly dried potatoes; and officers, on paying large sums (as 2*s.* 6*d.* for a cabbage, and £4 for a small sack of potatoes), could get fresh vegetables. The fact was that the commissariat, having salt rations on hand, kept the men on these, although there were 10,000 cattle eating their heads

off in the neighbouring plain. The want of fresh meat was then a cause of scurvy. His opinion as to the disease had not been altered by what he had heard that night. It was a disease of the blood due to deficiency of organic acids and salts, and the reason why lime-juice and fresh vegetables were of value was because they contained these substances in the largest and most concentrated form. If the *Eira* Expedition had lived entirely on walrus meat, it would have been a crucial test of the efficacy of such a diet; but they also had a very large quantity of vegetables, nearly half a pound daily for the fifty weeks. Affairs were very different in the Nares' Expedition, the crews there were under bad hygienic conditions; they had a large quantity of vegetable food, pressed potatoes, pickles, jam, lime-juice. Indeed, Captain Nares gave his men a double allowance of lime-juice, thinking it would the better ward off the scurvy; but he did not consult his medical officer on the point, or as to the victualling of the sledging parties—viz., one pound of pemmican, no lime-juice, and two ounces of dried potato. It had been said that dried potato was equivalent to five times its quantity of the fresh tuber, but this was an error. There was no wonder that the men knocked up on this ration, particularly when the work they did was considered. On the most moderate computation, he had calculated that each man on one of these sledging expeditions did work equivalent to 500 foot-tons per diem. For a well-fed, healthy man 300 foot-tons is a good day's work; and it must also be remembered that the men on the expedition were often unable to swallow their pemmican, and were exhausted by diarrhœa. The conditions, therefore, of the two expeditions were totally different. The damp and foul air on board ship must be put aside as a cause, for the men did not get the scurvy till they went on the sledging expedition. A main cause of the outbreak of scurvy among the crew of the *Investigator*, referred to by Sir W. Smart, was that the supply of lime-juice failed them. It was probably the lactic acid in fresh meat that gave it antiscorbutic qualities, which was further supported by Dr. Rae's remarks as to the large quantities of meat that the men required. It would be suicidal of any government to equip an expedition without fresh vegetables or lime-juice. Dr. Rae told him that in one of his expeditions he had found fresh fish of service, as salmon. As to the supposed immunity of the Esquimaux, it must be remembered that they freeze and store up for consumption all the vegetable matter found in the stomachs of the reindeer and musk ox. The Kaffirs are in the habit of eating the contents of the stomach of oxen, no doubt with the same object. In the Cape scurvy has broken out at times amongst our soldiers, although it is a warm climate, but where no vegetable food was at hand. Then there are cases in civil life among people who neglect eating vegetable food; they have scorbutic symptoms, which are cured by lime-juice. Dr. Aitken had told him that one of the worst cases he had seen was in civil life; the patient had been living almost entirely on roast mutton and bread. He was cured by vegetables. Dr. De Chaumont thought that it would be very dangerous to apply the results obtained from the *Eira* Expedition under favourable circumstances to all circumstances. In some cases of scurvy vegetables have been used more or less, but until we can get freedom from scurvy in cases where diet is restricted entirely to meat, the view of the influence of vegetables cannot be discovered. But it must not be supposed that all those who are placed under conditions liable to produce scury will get it. Some people are exempt from typhus fever, although exposed to infection. There may be found in picked crews men who are capable of withstanding the evil influences which produce scurvy.—Sir JOSEPH FAYRER pointed out the enormous decrease in cases of scurvy admitted into the Naval Hospital on the introduction of lime-juice at the close of the last century; before then there were 2000 cases in the fleet; but after the introduction only one man a year. He remembered the intense desire for vegetable food he and his companions experienced when shut up in Lucknow during the siege. Men risked their lives to obtain the small species of cruciferous plant that grew outside the walls, which was sold to the besieged residents for its weight in silver. Scurvy attacked many of them, who (he among them) had to be sent home. The hygienic conditions under which they had lived during these five months had been very bad, and these, coupled with the utter absence of vegetable food, produced scurvy. At the same time people do get scurvy although having vegetable food, as he had seen in malarious districts in India cases presenting all the features of scurvy, in the condition of the gums, hæmorrhages beneath the skin, and in the sheaths of tendons.—Dr. ROBERT BARNES had some experience of scurvy as physician to the *Dreadnought*, and had spent a year on board a merchant ship. He concluded that the absence of lime-juice, as representative of food containing the essential salts for healthy nutrition, was the cause of scurvy. Other substances possessed the same properties. Men and women had lived for a considerable time on a floe of ice, subsisting on raw flesh, which might be likened to milk. Dr. Rae's experience bore this out. At the same time vegetables will largely supplement animal diet. If a government could be found which would send out an expedition to the Pole without supplying lime-juice, or its equivalent, it ought to be indicted before the opinion of the world. In merchant ships scurvy is a disease of the forecastle, not of the cabin. If the captain and his officers can take care of themselves as to diet, he should be bound to look after his men too. There should be an inspection, not of the food alone, but of the crew, and the captain should be held as responsible for their health as the master of a household is for those under his care. It had been conclusively shown that night that raw meat and blood were admirable adjuncts to lime-juice as antiscorbutics. Although bad hygiene has some influence, it must be remembered that scurvy has broken out in the open air—in Canada, in the tropics, and elsewhere.—Dr. RAE, referring to Dr. Barnes's remark, mentioned that of the twenty-nine deaths in Franklin's ships nine were officers.—Dr. BARNES said he was alluding to the merchant service; he was aware that in the Army and Navy officers always endure privations with their men.—Dr. BUZZARD said that even if he had not recorded his convictions about scurvy in an article he wrote in Reynolds's "System of Medicine," fifteen years ago, he should have felt it unnecessary to say anything after the speeches they had heard from Drs. De Chaumont and Barnes. He wished, however, to ask Mr. Neale a question: Did Mr. Leigh Smith suffer from scurvy?—Mr. NEALE: Not in the slightest degree.—Dr. BUZZARD: Then, did Mr. Leigh Smith eat any of the fresh meat?—Mr. NEALE: No; Mr. Leigh Smith only partook of the soup, but always insisted on his portion being well thickened with blood. He was unable to eat the coarse animal food.—Dr. BUZZARD continued, pointing out that the pressed potatoes are only half boiled, and are not dried or submitted to prolonged heat, which might affect their antiscorbutic value; and no less than half a pound of these pressed vegetables was available for each man of the *Eira* during their sojourn.—Dr. REGINALD THOMPSON said that as a little doubt had been raised as to the possibility of a man living on an exclusively meat diet, he would mention that when he met Dr. Rae in Rupert's Land he was in charge of an expedition of half-bred natives. They had no vegetables, but some tea, sugar, and flour. He was never in better health, and ate enormously of meat, which, on the only two occasions he had an opportunity of employing it, amounted to 8 lb. a day. This supported Dr. Rae's remark that if one has to subsist on a meat diet enormous quantities have to be taken.—Mr. NEALE, in reply, suggested that Dr. Colan should have made use of the acids, of which they had such abundance. The vegetable supply on the *Eira* was not more than other expeditions had. These men were subjected to fatigue. Dr. Rae and Sir W. Smart had given instances of the value of fresh meat. The failure of a meat diet in summer, as in the *Investigator* case, might be explained chemically by changes which the flesh underwent after being killed. It was very important that the meat should be quite fresh, and the blood unchanged. The crew of the *Eira* were not picked men. They were collected from Peterhead and Dundee after the whalers had left. Some of these men had had scurvy, when kept on board ship on previous voyages. One of these, who had had scurvy three times, on one occasion was so bad that he was sent on shore to die; but he was put between two Esquimaux women and had flesh diet, and recovered. Captain Murray of Peterhead had wintered in the arctic regions eleven or twelve times, but had never had scurvy, living on seal meat. He did not wish to say for a moment that vegetables and lime-juice do not act as cures for scurvy, but to suggest that fresh meat would be found equally efficacious.—The PRESIDENT apologised to Dr. Hale White for not calling for a discussion on his paper, but there would be an opportunity for his observations to be dealt with at a future meeting, when two other papers dealing with the pathological aspect of scurvy were to be read. He thanked the writers who had

contributed so much that was interesting. Hitherto scurvy has been dealt with on empirical principles; none of the trials made were scientific, they all contained fallacies, such as Dr. De Chaumont had indicated. If any Government inquiry were instituted it ought to be a scientific inquiry, and they should first have scientists to tell them what scurvy is, and then inquire as to its rational treatment. This was one of the cases where English medicine was on its trial, and he trusted that the subject would now receive full and complete scientific investigation.

Annual Meeting.—President's Address.

The annual general meeting of the Society was held on Thursday, March 1st, 1883, Mr. John Marshall, F.R.S., President, in the chair.

The PRESIDENT, on taking the chair, declared the ballot open for one hour, nominating Dr. C. H. Carter and Mr. George Eastes as scrutineers. The report of the President and Council, which was read by the Secretary (Mr. Berkeley Hill), announced to the meeting the continued prosperity of the Society, and the progressive increase in the number of its Fellows. The number of deaths among them had been nineteen, which was about the average of the last twelve years, and among these were two of the honorary Fellows, Mr. Charles Darwin and Dr. John W. Draper. The new elections had been twenty-six (twenty-one resident and five non-resident). A few minor changes among the Fellows as to non-residency, &c., were enumerated, and the number of subscriptions was stated to be 301, against 292 in the last report, and the total number of the Society, resident, non-resident, and honorary, was 704. The items of receipt and expenditure were, in most cases, much the same as in recent years, an increase, however, being observable in the expenditure on the library, stationery, and repairs account. There had been also a large "extraordinary" expenditure on repairs of the exterior of the house, which the ground landlord had required to be done, and which, with an expenditure on the seats of the meeting and other decorative improvements, amounting in all to about £250, had been defrayed, with the exception of a small balance, out of the current receipts of the last two years. It was stated that these alterations, much to the Society's benefit, had been carried out with great judgment and economy under the careful supervision of the retiring secretary, Dr. Reginald Thompson. The payment of the sum of fifty guineas to the Harvey Tercentenary Memorial, voted at previous anniversary meetings, having been shown to be illegal, the amount had, owing specially to the exertions of the treasurer, Mr. Cooper Forster, been made up by a subscription among forty of the Fellows. The report also alluded to the time having arrived for a second award of the Marshall Hall Memorial Prize, and that the Council recommended to the Society its presentation to Dr. David Ferrier for his investigations into the physiology and pathology of the nervous system. A change in the character of the printed proceedings had been made by the introduction of reports of the discussions at the meetings, and, to facilitate these discussions, abstracts of the papers had been printed for distribution before each meeting. The report of the librarians stated the number of additions to the library (467 works), and, after referring to the triennial inspection of the library by the committee having taken place, and the library found in excellent condition and perfect working order, gave full details as to the number of volumes in the library (33,500), the number of books taken out, of daily visitors, &c. The adoption of the report was moved by Dr. Julius Althaus, who congratulated the Society on its prosperous condition, and praised in eloquent terms, and with reference to the contemporary condition of scientific research on the nervous system on the Continent, the judicious award of the Marshall Hall Prize to Dr. Ferrier, whose researches rendered him so worthy a recipient of it. The motion was seconded by Mr. Pickering Pick, and carried unanimously. The President then called upon Dr. David Ferrier to come forward, and addressing to him a few complimentary words upon the grounds upon which the award had been made to him, presented him with the diploma recording his selection as the second Marshall Hall prizeman, and with a cheque for the amount of the prize (£85) at the same time. Dr. Ferrier thanked the President and the Society for the high honour they had conferred upon him by their selection of him as a recipient of the prize.

The PRESIDENT in addressing the meeting introduced at once the subject of the losses the Society had sustained among its Fellows during the past year, which he said were so numerous and important that he must defer the task of considering more general questions relating to the Society and to the progress of medicine and surgery to a future opportunity. The President gave a short classified enumeration of the deceased Fellows, of whom the non-resident were nine, including three, Drs. F. E. C. Hood, F. R. Hogg, and Charles Morehead who had served with the army in India; three others, Drs. Richard Elliot, of Carlisle, Richard Cross, of Scarborough, and William M'Ewen, of Chester, who had been engaged in practice in large provincial towns; and three, Drs. W. W. Johnston, Joseph Williams, and George Budd, who had retired from metropolitan practice to reside in the country; one deceased physician, Sir James Alderson, though he had ceased to belong to the Society, was connected with it for many years, partly as a non-resident, but chiefly as a resident Fellow, and had in 1865-6 been a President of the Society. There were eight deceased resident Fellows, Dr. Robert W. Lyell, Dr. Alexander Silver, Mr. J. T. Clover, Dr. Robert Taylor, Mr. George Critchett, Dr. Peacock, and Sir Thomas Watson; and there were two honorary Fellows, Dr. John William Draper, of New York, and Mr. Charles Darwin. The President went into full details of the lives of the deceased, taking the individuals in each class in the order of the duration of their fellowship, beginning with the youngest, which he said he found to correspond with their ages, influence, and position in the profession. For such statements, he said, as were not based on his acquaintance with the deceased, or on circumstances regarding them which had come within his own cognisance, he was much indebted to obituaries which had already appeared in the public journals. In his notice of Dr. George Budd, the President referred to the interesting fact of so many of his brothers (seven out of nine) having become members of the medical profession, he being third wrangler at Cambridge, and his successive connexions with the Middlesex Hospital, the *Dreadnought* Hospital Ship, and King's College, the offices he held at the College of Physicians, and the production of his standard work on Diseases of the Liver and Stomach. In the notice of Mr. Clover, he went very fully into the points of the amiability and unselfishness of his character, his patience and cheerful resignation under the wearing effects of chronic pulmonary disease; and his large experience and wonderful ability in the administration of anæsthetics, so well illustrated in his valuable article on the subject in Quain's "Dictionary of Medicine." Full notices of the life-incidents, character, and works of Mr. George Critchett, Dr. T. B. Peacock, and Sir Thomas Watson, concluded the obituary portion of the address, in which the speaker largely dwelt upon Mr. Critchett's excellence as a teacher and his acknowledged dexterity as an operator, his promptness in consultation, and considerate kindness to his patients; Dr. Peacock's predilection for pathological investigations, and his gradual concentration of them on the malformations and diseases of the heart; the presentation of his unrivalled collection of examples of these diseases to the Hunterian Museum; his strongly marked individuality, precision, conscientiousness, and simplicity of character; and his fondness for foreign travel and frequent journeys abroad for the recuperation of his energy. The origin, and collegiate, and early life of Sir Thomas Watson, the "Nestor of English Medicine," who had died at the patriarchal age of ninety years and nine months; his connexions as physician and lecturer with the Middlesex and King's College Hospitals and their outcome in the publication of his celebrated Lectures, the estimation of which has been in our time almost unique, the description of disease in them being so full and clear as to cause him to be compared with Sydenham, and their scholarly style having gained for him the appellation of the Cicero of English medical literature; his professional eminence, moral worth, sagacity, integrity, and steady adherence to those high principles of duty which made him so fit to advise on all ethical questions relating to our profession, entitled him justly to the name of the "greatest English physician of the present century." The President then gave biographies of the two Honorary Fellows: Dr. James William Draper, the physicist, chemist, and physiologist, and Charles Darwin, the great naturalist; with notices of their works, and a discussion of the question of the important influence they had had, especially those of the latter, on the science of the day; and then summed up his address with reflections on

the lessons we might derive from these histories of the careers of the deceased members, from which peroration the following words are extracted:—"The thought has often occurred to me, and no doubt to many besides, what an amount of accumulated experience and wisdom is blotted out at the death of each master of the craft of medicine and surgery; and if we reflect on the number of gifted, learned, and industrious men who have passed from our ranks during the last twelve months, we may well feel dismay that so much slowly acquired individual knowledge has been here extinguished, and so much personal power has thus died out. But, fortunately, owing to the liberal intercommunication of ideas which distinguishes the real from the false disciples of Æsculapius, amongst the instruments of which are societies or brotherhoods like ours, such knowledge and power are handed on from period to period, and the example of one generation is emulated by its successors. If we study the record of the lives of our deceased Fellows which I have put before you, we find that they possess one common characteristic—viz., devotion to work. Whether they were born to affluence, or entered upon life supported by moderate or scanty resources; whether their early education was of the highest order, or of humbler pretensions provided for them or secured with difficulty; at whatever medical school they were trained; whatever professional titles they acquired; whatever the branch of practice to which they had recourse; whether in London, the provinces, or abroad; whether they had the early support of powerful friends, or struggled upward by themselves; whether they were shaped by circumstances or compelled circumstances to bend to them; whether they aimed solely at professional eminence or sought relief to their redundant energy in the duties of citizens besides; whether they were rewarded by the rich or the poor, by the public, the profession, the Government, or the Crown; and, lastly, whether their lives were so prolonged as to secure the full fruition of their aims, or were cut so short that they saw but visions of future success—it is apparent, I say, that all were devoted to their work." After a few words relative to the special interests of the Society in relation to the deceased Fellows, the President concluded by exhorting the Fellows to continued efforts towards increasing the prosperity of the Society.

A vote of thanks to the President for his address was moved by Mr. Spencer Wells, and seconded by Mr. H. W. Page; and the motion, having been put to the meeting by the Treasurer (Mr. Cooper Forster), was carried with acclamation. Thanks were also voted, on the motion of Mr. Thomas Smith, seconded by Dr. Macfarlane (of Kilmarnock), and carried unanimously, to the retiring vice-presidents and other members of the Council; and a vote was also moved by Mr. Christopher Heath, seconded by Mr. R. W. Parker, and carried with applause, to the retiring secretary, Dr. Reginald Thompson, and the retiring librarian, Dr. Edward H. Sieveking, for their zealous and valuable services, the mover especially referring to the rather severe addition to the usual secretarial duties which had fallen to the lot of the retiring secretary, who, during the three years of his holding office, had had to superintend repairs, alterations, and improvements, external and internal, of the Society's premises, in which his valuable knowledge and judgment in these matters had been of the utmost service to the Society.

During the course of the meeting, the President announced the result of the ballot for officers and council for 1883–84:—President: Mr. John Marshall. Vice-Presidents: Dr. John Russell Reynolds, Dr. Reginald Edward Thompson, Mr. William Scovell Savory, Mr. Richard Barwell. Treasurers: Dr. Charles Bland Radcliffe, Mr. John Cooper Forster. Secretaries: Dr. Reginald Southey, Mr. M. Berkeley Hill. Librarians: Dr. Charles Hilton Fagge, Mr. John Whitaker Hulke. Other Members of Council: Drs. G. F. Blandford, Dyce Duckworth, Gee, Pavy, J. E. Pollock, and Messrs. Cowell, Henry Power, Howard Marsh, Septimus W. Sibley, and Spencer Watson.

PATHOLOGICAL SOCIETY OF LONDON.

Hypertrophy of Lower Jaw.—Rheumatoid Arthritis.—Fracture of Sternum.—Exostosis on Fibula.—Sacculated Bladder in Female.—Sarcoma of Bladder.—Sarcomatous Myofibroma of Uterus.—Charbon.—Tests for Albuminuria.

THE ordinary meeting of this Society was held on Tuesday last, Mr. J. W. Hulke, F.R.S., in the chair. Several specimens of considerable interest were shown, among which we may specially refer to the charbon pustules and bacilli from Guy's Hospital. Dr. Ralfe gave a very useful demonstration of practical points in connexion with testing urine for albumen, and clearly showed that in the urine from a case of Bright's disease heat alone determined the presence of serum-albumen, the other tests only showing that some form of albumen was present in the other specimens.

Mr. C. HEATH showed a woman of thirty-six years of age with Unilateral Hypertrophy of the Ramus of the Mandible. At twenty-five years of age she had an attack of left hemiplegia implicating the face; her limbs recovered, and so did her face, at least partially. During the last ten years the face had become deformed. The chin was pushed over to the right by hypertrophy of the left ramus of the jaw, the body being unaffected. The vertical length of the left ramus was three inches, the right one inch and a half. The motion of the jaw was restricted. The pathology was obscure. He referred to a somewhat similar case in Dr. Adams' work on Chronic Rheumatoid Arthritis, but in it there was distinct rheumatoid affection; there was nothing of this kind in his case. He regarded it as a case of hypertrophy which could be remedied by removing part of the jaw and producing a false joint.—Mr. ROGER WILLIAMS said he had a specimen of hyperostosis of the angle of the jaw. The patient was a healthy young man. The angle of the jaw was removed. The bone was exceedingly dense.—Mr. HULKE said that in Mr. Heath's case there was no great enlargement of the articular end of the bone; in Mr. Adams' case there was.—Mr. CROFT asked Mr. Heath what there was in this case to distinguish it from osteitis deformans, which it somewhat resembled. Had the woman had pains in the bones? This disease was very rare in so young a person. He thought the vascular supply was interfered with on account of the remarkable unilateral character of the affection.—Mr. C. HEATH replied that the patient had had no pain. Sir J. Paget had declined to recognise it as a case of osteitis deformans. He would show a piece of the bone after removal.

Dr. NORMAN MOORE brought forward Dorsal and Lumbar Vertebræ, showing rheumatic arthritis, from a Roman tomb discovered in digging the foundations of the library at St. Bartholomew's. The skeleton to which the bones belong was entire, and lay in a stone sarcophagus preserved at St. Bartholomew's. The vertebræ showed lipping of the edges of the centra, irregularities on the intervertebral surfaces, and in some places anchylosis with considerable formation of osseous tissue. There was nowhere any loss of substance. In the middle dorsal vertebræ there was bony union on both sides, but lower down, though both sides of the centra were lipped, fresh bone had been formed on the right side only. Della Chiaje had described rheumatic arthritis in bones found at Pompeii, but the St. Bartholomew's tomb, ascribed by antiquarian authorities to the fifth century, had, perhaps, furnished the earliest case of the disease in England.—Mr. BRUCE CLARK mentioned a specimen, four or five centuries earlier, in the museum at Oxford—an atlas ossified to the skull. It came from a tumulus of before the Christian era, and was regarded by Professor Rolleston as the earliest specimen extant.—Mr. CROFT said the term rheumatoid arthritis was loosely used, and he urged that it should only be employed in cases with a clear history of rheumatism.—Mr. HULKE said that many years ago an old Roman cemetery at Saffron Walden was dug up, and a large number of the bones presented the changes seen in these bones.—Dr. NORMAN MOORE said it was very common to find deposits of urate of soda in joints without any history of gout; he therefore could not attach much importance to the absence of a history of rheumatism in cases of arthritis. He thought the changes in the bones were characteristic.

Mr. ARBUTHNOT LANE showed a specimen of Fracture of the Sternum at the junction of the first and second pieces, and Dislocation of the Second and Third Left Costal Cartilages from their Ribs. There was no fracture of ribs and vertebræ. He also described a form of articulation that was found in the first costal cartilage when it became sheathed in bone. This might be either a single arthrodial joint or one of two forms of mixed articulation. These conditions were exemplified in the specimen shown. Their purpose was to obviate the rigidity of the cartilage, and to allow of the free movement of the sternum in respiration.—Mr. PITTS thought it was difficult to account for the nodule of bone on the back of the sternum, which appeared to be a fragment of

a comminuted fracture, and yet there was no indication of where the piece was detached from. Could the nodule be due to some secondary change about an old fracture? The point in reference to the joint of the first costal cartilage was a very interesting one.

Dr. HALE WHITE showed a peculiar Process on the Fibula in the Fibres of the Soleus, beginning one inch from the top of the fibula springing just above the oblique line on the inner side. He thought it was unique.—Mr. MORRIS asked if it was true bone or ossification of part of the tendon of the soleus. Such ossifications of tendons were not uncommon, especially in the tendons fixed to the great trochanter.—Mr. HULKE thought it similar to the processes developed in the adductor and deltoid muscles from constant riding and frequent bruising by the musket.—Dr. WHITE said it lay in the muscular fibres; it was on one side only of the body; it was true bone.

Dr. HALE WHITE also showed a Sacculated Bladder from a woman who had been under Dr. Wilks' care for hæmaturia and pyuria. She died, and on post-mortem all the viscera were healthy, except the bladder, where there was a small opening between the left ureter and the orifice of the urethra, which led into a cavity containing very offensive purulent fluid. This was a diverticulum from the bladder and larger than this viscus. There was a small abscess in one kidney and behind the uterus. The urine got shut up in the diverticulum, then decomposed, and it was impossible to cure the cystitis so caused. A sacculated bladder was extremely rare in the female, and one so large was very rare even in the male. In 3000 autopsies twenty sacculated bladders were found all in men. In none of them was the sacculus large enough to attract notice during life. The only cause of sacculated bladder in the female was either spinal disease or pelvic cellulitis, setting up cystitis or causing abscess opening into the bladder.—Mr. EVE thought that such sacculation formed as it were a safety valve, and that dilated ureter was infrequent in such cases.—Mr. BARKER asked if there was any evidence of obstruction in the urethra. Had the wall of the sacculus been examined? Dermoid cysts had been found to rupture into the bladder, and this might be such a case.—Mr. CROFT asked whether if the bladder had been examined by the finger passed through the dilated urethra, the opening of the diverticulum could have been felt.—Mr. MORRIS asked if among Dr. White's cases there was any instance of sacculation from enlarged prostate, which had caused the most marked example he had ever seen.—Dr. NORMAN MOORE referred to the fact that Casaubon's bladder was sacculated; this was caused by enlarged prostate.—Mr. HULKE referred to a case recorded by Pott, who operated for a supposed hernia, and urine escaped, and it was believed that a bladder sacculus had got into the hernial sac.—Dr. WHITE said no cause for the sacculation was found in the urethra. To the naked eye there was no evidence of the sac being a dermoid cyst. Out of nearly three thousand autopsies at Guy's, there were twenty cases of sacculated bladder, eleven caused by stricture, five by stone, two by spinal disease, one by enlarged prostate, and one through epithelioma.

—Mr. R. WILLIAMS showed two specimens of Sarcoma of the Bladder. In the first there was enlargement of the prostate, with a diverticulum of the bladder and a medullary sarcomatous growth in the diverticulum. The man had had difficulty in micturition for many years. A No. 10 English catheter passed easily. He complained of pain and weakness in the left leg. A tumour in the pelvis was detected, manipulation of which caused hæmaturia. At the autopsy the pelvic peritoneum was found pushed up almost to the umbilicus by a pelvic tumour. The bladder was flattened and compressed by the growth, and there was suppuration behind the bladder. The walls of the bladder were hypertrophied. About an inch above the orifice of the left ureter was the opening into a diverticulum larger than the bladder, and springing from the posterior wall of this diverticulum was the tumour above mentioned. The growth had pressed against one part of the bladder, and just at that spot was a small secondary growth from direct local implantation. The growths consisted of round cells, with tracts of spindle cells and myeloid cells, but no alveolar structure or cell nests. The second specimen was from the museum of the Middlesex Hospital. The viscus contained a growth fluffy on the surface. It was removed from a man aged sixty. No secondary deposits. Microscopically it consisted of branched villi covered with spheroidal epithelium; the deeper parts of the tumour were infiltrated with small round cells.—Mr. BOWLBY doubted whether these cases were either of them sarcomatous. In the first the clinical history was too long, the suppuration was also very unusual, and microscopically the tumour consisted to a great extent of fibrous tissue. As to the second case, it was very rare to find sarcomata papillated, while under the microscope the fibrous tissue preponderated. He thought it was a soft fibroma; the cells found were simple connective-tissue cells.—Dr. HADDEN stated that he recently made an autopsy on a man, aged sixty-three, who had suffered from pain and hæmaturia. He found a very large malignant growth springing from the trigone, white and fibrous. Behind the bladder were some enlarged glands.—Mr. EVE agreed with Mr. Bowlby that the tumours were not sarcomata. He thought that in the second case there were alveoli containing epithelial cells, and that it was a papilloma or carcinoma.—Mr. WILLIAMS replied that the two tumours were evidently quite unlike. In the second case there was fibrous tissue, no doubt, but the bulk of the tumour was made up of small round cells. Villous sarcomata had been often described before. The first tumour was almost entirely composed of cells, and fibrous tissue was only seen where the tumour was lobulated. The local infective nature of the tumour was opposed to the theory that the tumour was a fibroma.

Dr. FINLAY showed a specimen of Fibro-myoma of the Uterus becoming sarcomatous. The specimen was removed from a woman aged fifty-nine, who was admitted into the Middlesex Hospital under his care on October 4th, 1882. The patient had observed it for fifteen years, and it was only comparatively recently that it had given her any trouble. Eight days after admission she was seized with symptoms of peritonitis, and died on October 17th. Post mortem, the tumour was found to measure six inches by four and a half inches. It occupied the pelvic and lower umbilical regions, and was adherent to numerous coils of the intestines, one of which it had penetrated. It was attached to the fundus uteri by a pedicle about an inch in width. Its upper part was converted into an irregular ragged cavity, containing soft débris and blood-stained fluid; the lower part being firm in consistence, presenting the appearance of a uterine fibroid; it was whitish in colour, and was surrounded by a distinct capsule. A smaller tumour about the size of a walnut, and presenting the ordinary appearance of a fibroid of the uterus, was attached to the lower part of the uterus. Secondary growths were formed at the base of the right lung, in the heart, and in the left kidney. Microscopically the tumour was found to consist in some places of round, and in others of spindle-celled growth separated by tracts of the normal structure of the fibro-myoma. There were also here and there patches of mucous degeneration; and in parts a considerable development of new bloodvessels, the walls of which were closely surrounded by the new cell formation. The secondary growths presented the same characters, except that in them the round-celled growth predominated over the spindle-cells. The generally accepted view that such tumours were degenerated fibro-myomata was adopted, and the fifteen years' history, the appearance of the growth itself, and the co-existence of the smaller benign growth pointed to as corroborating this opinion. Two cases figured by Schroeder in Ziemssen's Encyclopædia were referred to; and also two of a similar nature recorded by Mr. Hutchinson, and the late Mr. Callender respectively in the Transactions of the Society twenty-five years ago.—Mr. EVE said that in striped muscle fibre tumours of the kidney, round and spindle cells were found, which were transformed into muscle fibre. In Dr. Finlay's case might not the cells be developing into plain muscular fibre?—Dr. DAWSON WILLIAMS said that in his case it was quite easy to see all stages between round cells and striped muscle; but it was not possible to assert that these round cells actually developed into muscle.—Dr. FINLAY said that the fact of the metastatic deposits quite disposed of Mr. Eve's objection.

Mr. DAVIES COLLEY showed specimens from a Case of Charbon, which were obtained from a patient aged forty-three, who worked in leather. Five days before admission to Guy's Hospital he was struck in the face by a hide and scratched. He became restless and delirious that night; had a rigor, and severe itching in the scratch. On admission there was a bright-red swelling on the cheek, with abrupt edge, and a dark slough in the centre; the glands behind the angle of the jaw were enlarged. The man was very ill; temperature a little raised. The tumour was at once excised. The serum of

the tumour contained abundant bacilli (shown). The blood contained only micrococci. The patient has gone on well ever since. Next day he expectorated much mucus; his urine, fæces, and sweat contained bacilli (shown). They had had many cases lately at Guy's, as many as twenty-three in eleven years; already there had been four this year. In this case there was not a distinct ring of vesicles round the swelling as seen in the other cases, but the slightly depressed blackened centre was very characteristic. The constitutional symptoms came on very early, and although they had been present for four days, operation had apparently been successful. The bacilli were being excreted in very large numbers.

Mr. BRYANT showed a specimen of Charbon Pustule taken from a man aged thirty-three, admitted a week after Mr. Davies Colley's case. He awoke three days before admission and noticed a small pustule on his face; the next day he was very ill, the swelling much increased, and the glands below the jaw were enlarged. He was admitted on the fifth day, almost cyanotic, very torpid, pulse 130, temperature over 100°; he had been retching. The characteristic sloughing condition of the skin was found in the face. The part was excised, but the man died collapsed in ten hours. Bacilli were found in the saliva and urine. Dr. Mahomed made the autopsy in Mr. Bryant's case. The stomach, intestine, and lung were diseased. The stomach and intestine were affected like the skin; a central slough with a halo of congestion surrounded it. Some of the sloughs were being detached; in the intestines the sloughs ran along the free margin of the valvulæ conniventes; in the cæcum the mucous membrane was immensely œdematous. In the lung little nodules occurred, about twenty in number; on section, they looked like hæmorrhagic infarcts; some were solid, others were hæmorrhages into the tissue. They, too, were probably of the same nature as the other lesions. The mesenteric glands, many of them, contained small hæmorrhages from infarcts of bacilli. There was an absence of the general œdema of the loose connective tissues which was commonly found. There were no subserous hæmorrhages nor pleuritic effusion. There were two pints of dirty bloody fluid in the peritoneum. At Bradford, where the poison was inhaled, nearly all the cases showed pulmonary symptoms and changes. The intestinal lesions were completely absent. At Strasburg the intestinal lesion was constant, probably from eating diseased animals. At Guy's the anthrax nodules were seen on the skin. The variations in the disease had led to varied classifications. The case showed recovery from intestinal anthrax; the sloughs were being separated satisfactorily. The patients died from cyanosis, the bacilli deriving oxygen directly from the red corpuscles. This might give an indication for treatment, to oxygenate the blood.

Dr. C. RALFE showed four specimens of Albuminous Urine, each of which contained a distinct variety of albumen. He brought forward the subject with no view of deciding the merits of the rival tests, as suggested by Dr. G. Johnson, Dr. Pavy, and Dr. Oliver, but to draw attention to the fact that heat, and heat alone, would decide whether the albumen was serum-albumen or not, the really important clinical question after all. Dr. Ralfe pointed out that the cumbersome spirit-lamp might be done away with altogether if only a one-inch square of copper gauze were carried in the pocket; this held above the gas- or candle-flame would prevent the test-tube becoming blackened. After the meeting Dr. Ralfe briefly demonstrated his facts. He spoke highly of Dr. Oliver's test-papers, which, if heat were employed in all cases as well, would give reliable results.

MEDICAL SOCIETY OF LONDON.

Elephantiasis of the Lower Limb.—Recto-Vesical Fistula; Colotomy.—Femoral Hernia, with Rupture of all its Coverings.

THE ordinary meeting of this Society was held on Feb. 19th, Mr. Francis Mason, President, in the chair.

Dr. HEATH STRANGE exhibited a girl seventeen years of age, the subject of Enormous Dilatation of the Lymphatics of the Left Lower Extremity, leading to great enlargement of the thigh, calf, and foot (elephantiasis), and a discharge of milky fluid from rupture of vessels in the thigh. She had been under observation since infancy. Vaccination at three months of age was followed by a general eruption on the face, hands, and buttocks, leaving scars, especially on the left side. At seven years of age the calf commenced to swell, the swelling, which was painless, gradually extending to the thigh and foot. At the age of nine she was an inmate of Great Ormond-street Hospital, under Dr. Cheadle's care for three months, the swelling having diminished, but her general health was greatly debilitated. The swelling returned, with attacks of pain, heat, and redness of the surface of the leg, and severe constitutional disturbance. The skin became darker, tubercular patches formed on the dorsum of the foot, at the roots of the toes, on the inner ankle, and on the margin of the inner side of the sole of the foot, after exercise. A small punctiform opening appeared on the inner side of the thigh, and commenced to discharge a white, milky fluid, having a faint, disagreeable odour. The fluid was often ejected with considerable force, and later there was discharge also from the tubercles on the foot. Crusts formed on the foot, and the leg again swelled; then, after an attack of severe inflammation and great pain in the knee, "something appeared to give way," the pain ceased, and the limb has gradually decreased, although there has been no discharge for the past five months. The calf, which measured eighteen inches and a half in circumference, and the foot, fourteen inches and a half, are now reduced to nearly the same size as the right, but the shaft of the tibia appears enlarged, and the left foot is still slightly larger than the right. Treatment was rest, bandaging, generous diet, and alterative tonics, cod-liver oil, and the syrup of the iodide of iron.—The PRESIDENT asked as to the duration of the discharge, and alluded to a similar case under his care.—Sir JOSEPH FAYRER pointed out the distinction between local affections and elephantiasis. There was a similar hypertrophy of the tissues, &c., but true elephantiasis is the local expression of a constitutional disease, and is limited to certain tropical regions and their seaboard, not extending far inland. He doubted the origin of the disease from filariæ of the blood, as they were sometimes absent, and he had never known local treatment of any avail except in some young people, who could be moved from place to place. Elephantiasis occurred very seldom in persons of unmixed European blood. In some nations removal to a drier climate appeared to have been of service. He had tried ligature of the femoral artery without success; the swelling was reduced as long as the patient remained in bed after the operation, but recurred on his resuming work. Similar temporary reduction followed bandaging. In elephantiasis of the scrotum excision of the tumour often removed the constitutional disease.—Mr. EDMUND OWEN thought the term "elephantiasis," as applied to these cases of simple hypertrophy, to be of no pathological value, merely suggesting a superficial resemblance. Although hypertrophy due to disease of the lymphatics was more common in the tropics, still cases are occasionally met with here, and he was inclined to attribute them to chronic inflammatory changes.—Dr. ROUTH inquired if the source of the lymph used in vaccinating the patient was known. He thought it possible to produce an artificial elephantiasis, and had seen such a case where nitrite of amyl had been accidentally introduced in a morphia injection.—Mr. BRYANT thought the possibility of curing the disease by removing the local manifestation not inconsistent with received views of a filarial origin. He knew of a case in Leicester where the disease had apparently been transmitted through three generations, and none of the members of the family had ever left the town. Although unable to explain the good effects of ligation of the femoral, complete cure had followed this procedure in a case of his, and in another case temporary cure had followed ligature of the superficial femoral alone. He had seen elephantiasis in a man who had never left England, and in two boys, sons of a West Indian, but brought up in England.—The PRESIDENT exhibited three photographs of Elephantiasis Scroti.—Sir J. FAYRER did not consider the cases met with in England as examples of true tropical elephantiasis, which begin with febrile disturbance and rapid hyperplasia, followed by slower growth. On removal of the growth the constitutional disturbances cease.—Dr. CROCKER said that the condition of elephantiasis might be produced in various ways. He had had much success with the elastic bandage.—Dr. HEATH STRANGE, in reply, said that the discharge continued constantly for several months, and then ceased altogether. The fluid was not examined. The veins were not apparently enlarged. The aspect of the limb was that of phlegmasia dolens.

Mr. BALLANCE related a case of Fæcal Abscess communicating with the rectum, ileum, cæcum, and bladder. A navy lieutenant, twenty-seven years of age, was the sub-

ject of chronic dysentery following an acute attack three years previous to coming under notice. Eighteen months later flatus began to pass per urethram, and continued to do so for three months before any fæcal matter was observed to escape by this channel. When first seen he was greatly emaciated, and was suffering from a spurious diarrhœa. Much feculent matter and gas passed by the urethra; the urine was very offensive. There was fulness above the pubes, extending more to the left than the right; constant and severe pain was experienced at the neck of the bladder and the posterior part of the urethra, which morphia at least failed to relieve. The small intestine was thought not to be involved, because of (1) the length of time the patient had lived since the onset of symptoms; (2) the character of the fæcal matter; and (3) the history of dysentery. Right colotomy was performed. Death occurred suddenly on the tenth day. The post-mortem examination revealed a tight stricture of the rectum, above which three apertures led into a fæcal abscess situated above the bladder. The abscess also opened freely into the bladder, and by smaller apertures into the ileum and cæcum. Mr. Ballance remarked that the colotomy would probably have been more successful if it had been performed earlier, when only the rectum was involved, and raised the question whether in such a case as the above external urethrotomy would have been the better course. Such a measure would have given rest to the bladder and urethra. He also suggested in such cases of vesico-rectal fistula the performance of a colotomy—stretching the proximal end of the divided colon to the abdominal wound; but after uniting the cut margins of the distal end returning this portion of bowel into the abdominal cavity.—Mr. BLACK thought colotomy the best mode of giving relief in this class of case.—Mr. BRYANT thought the cause of the fistula in this case more common than was usually believed, and more common than in cancerous ulceration. He had performed colotomy in two such cases with permanent relief, and argued against the postponement of that measure. He thought the perineal drainage hardly feasible.

Mr. BERNARD PITTS read notes of a case of large Femoral Hernia, where sudden rupture of its coverings occurred, and a portion of intestine was protruding for several hours after reduction. A woman, aged forty-six, who had a large femoral hernia of twenty years' standing, and who had been operated on at Guy's Hospital for strangulation of the same two years previously, had lately left off wearing her truss. On the evening of December 4th, whilst walking upstairs, she sneezed violently, and immediately felt something give way in her right groin. She found on examination that a portion of intestine had escaped through a rent in the skin covering the hernia. She was sent to St. Thomas's Hospital, and operated on directly after arrival there. A portion of the small intestine with mesentery about one foot and a half in length protruded through a rent in the skin one inch long, situated a little above the old operation cicatrix. The intestine was very bruised, dirty, and cold. It was well cleansed with carbolic lotion. The opening in the skin was enlarged freely, the crural ring slightly enlarged, and the protruded intestine, together with several feet of intestine found in the sac, were returned into the abdominal cavity. The sac and the redundant skin were afterwards removed, and the neck of the sac secured with stout catgut. The patient made a good recovery. Mr. Pitts remarked on the singularity of the accident and the reasons that led him to attempt a radical cure.—Mr. EDMUND OWEN observed that the case was probably unique. Femoral herniæ which had once been operated on were apt subsequently to assume large proportions. A few years since he had operated on a lady for strangulated hernia, who, twenty years before, had passed through the same kind of trouble. After this first operation there had been free sloughing of all the integuments. The patient did well after the second operation. In neither of these operations, nor in the present case, had the spray been employed.

Excision of Hip in Early Stages of Disease.—Dupuytren's Contraction in a Female.—Ascites in a Child.

At the meeting of the Medical Society of London on Feb. 26th, Mr. Francis Mason, President, in the chair,

Mr. PYE read notes of a case of Early Excision of the Hip-joint, and rapid recovery with a very movable false-joint. The child, between three and four years old, was admitted into the Victoria Hospital for Children four weeks after the onset of symptoms of hip-disease; but there was so much suppuration and exhaustion that operation was not delayed. A large abscess in the upper part of the thigh was laid open, and on exploring the cavity the head of the femur was found to be all but detached, and it broke off in the fingers. The excision was performed in the usual manner, the bone being divided below the great trochanter. The acetabulum was healthy. A Bryant's double splint was applied, and the prone position maintained for three weeks. Convalescence was rapid. There is one inch shortening; but movements of rotation, flexion, and adduction are perfect; abduction is limited. Attention was drawn to the completeness of the recovery; the early age of the patient and the growth of the limb since the operation, the extreme rapidity of the destructive process and the advantage of the prone position in after treatment.—The PRESIDENT said he was rather in favour of waiting in such cases.—Mr. EDMUND OWEN said that had not the result in this case been so satisfactory he would have suggested that the excision might have been limited to the intracapsular portion of the femoral diaphysis.—Mr. W. ADAMS thought excision should be undertaken as soon as the presence of diseased bone was made clear.—Mr. PYE, in reply, said Listerian precaution was not followed in this case.

Mr. FISHER exhibited a female patient, fifty-two years of age, with well-marked Dupuytren's Contraction of both Hands. It commenced two years ago in the left hand, with drawing down of the little finger. The first phalanx is drawn to nearly a right angle with the metacarpal bone, and the second phalanx is flexed in the first, almost touching the palm; on the right hand the ring and little fingers are involved. The condition is rare in females. The present subject does much hard manual work; has never had gout, but her father suffered from it. Mr. Fisher contrasted this with a condition of flexion of the little finger, independent of contraction of the palmar fascia, the first pharyngeal joint alone being implicated, a condition common in young females. In answer to the President, he stated that no operation had as yet been performed, but he intended to undertake it on both hands in succession.—Mr. W. ADAMS had only seen three cases of Dupuytren's contraction in women, two depending on gout. Contraction of the fascia and its digital prolongation was essential for certainty of diagnosis.—Mr. BLACK stated that an example of this contraction in a female was at present in the dissecting-room at Westminster Hospital.—Dr. HARE protested against attributing this and similar affections to gout without full evidence from family or personal history, and the result of examination of the blood or serum. He had seldom seen this affection in cases of gout.—Dr. ROECKEL said the affection was common in Germany, where gout was very uncommon.—Dr. EWART thought the affection frequently associated with gout; at any rate, contraction of the fingers was often found in persons who inherited or manifested gout. Were not the various forms of contraction but stages of one disease?—Mr. ADAMS, who replied for Mr. Fisher, admitted that the pathology of these cases was very obscure. He had never operated on those cases which could be treated successfully by prolonged mechanical means. Other forms might depend on contraction of the tendon, but in Dupuytren's contraction the fascia was implicated, and he believed it to be gouty in origin because of its being found more often in the upper classes of society, and in butlers and footmen rather than in the working classes, because of its being symmetrical, often inherited, and often associated with gout.

Dr. DAY exhibited a girl eight years of age, who, on May 6th, 1882, was admitted into the Samaritan Hospital under his care, with symptoms of abdominal dropsy. For three months before admission her abdomen had been increasing in size. Copaiba, iron, digitalis, and purgatives failing to diminish the dropsy, paracentesis was performed on June 16th and fifty ounces of fluid withdrawn. This was followed later by elaterium, and she subsequently became quite well under iron and digitalis. Dr. Day thought that anæmia and some cachectic states of the system arising from deficient food and insanitary conditions might alone produce ascites. When the fluid resisted absorption and the general health was failing, he recommended paracentesis, followed by tonics, good living, and active aperients.—Mr. E. OWEN suggested that the case was one analogous to hydrocele.—Dr. ROUTH had met with cases of ascites dependent on fæcal accumulation.—Dr. R. LEE alluded to the transitory enlargement of the abdominal glands in children apart from tuberculosis, and depending

on slight intestinal derangement. In scrofulous children such enlargement becomes permanent. In other cases, the temporary obstruction to the portal circulation from pressure by these glands passed away under rest and proper diet. In Dr. Day's case, however, active interference was necessary.—Dr. EWART said the glandular condition would not account for the effusion, though it might explain the slowness of absorption. The greater number of cases of ascites are due to portal obstruction; in children from a condition of subacute cirrhosis, frequently associated with rickets; often from tuberculosis of the liver. Mercurial treatment and purgatives were of most avail in such cases.—Dr. DAY, in reply, did not think the ascites in his own case was due to glandular or portal affection, but to debility or some constitutional condition; and, in fact, was analogous to hydrocele. Cases which recovered under mercurials and purgatives were usually of this class.

The annual general meeting of this Society was held on Monday last, when the election of officers and Council for the ensuing year took place, and the reports of the Librarian, Treasurer, and of the Council were read and adopted. The report of the Council entered into full detail concerning the important building operations which the Society had initiated during the past year, and which were now well advanced. The number of new Fellows admitted showed an increase over former years, and the Society has every reason to be satisfied with its position. By next session it will be in possession of premises which will not only afford it ample library accommodation, but a meeting-room of considerably larger size than the present. Silver medals were awarded to Mr. Edmund Owen, the retiring Secretary, and to Dr. Whipham for his valuable paper on Bacilli in relation to Tuberculosis. The Fothergillian Gold Medal has been awarded to Mr. Norman Porritt of Huddersfield, for the best essay on the Operative Treatment of Intra-thoracic Effusion; five essays were received in competition for this prize. Votes of thanks were cordially passed to Mr. Francis Mason, the retiring President, to the retiring members of Council, and to Mr. Edmund Owen, the retiring Surgical Secretary; and the votes were acknowledged in suitable terms by Mr. Mason and Mr. Owen, who alluded to the fact that, in spite of the inconvenience attending the building operations, the Society had continued its weekly meetings without interruption. At the close of the business of the general meeting Dr. Broadbent read notes of two cases illustrative of the value of the cold douche in delirium tremens and in pyrexia, and a discussion followed, in which Sir Joseph Fayrer, Dr. Althaus, Dr. Gilbart Smith, and others took part. The following gentlemen were duly elected to the several offices:—President: Sir Joseph Fayrer. Vice-Presidents: Dr. J. Hughlings Jackson, Mr. John Cawood Wordsworth, Dr. John Brunton, Mr. Alfred Cooper. Treasurer: Dr. Alfred Wiltshire. Librarian: Dr. William Henry Allchin. Honorary Secretaries: Dr. Isambard Owen, Mr. Alfred Pearce Gould. Secretary for Foreign Correspondence: Sir William MacCormac. Council: Mr. Henry Francis Baker, Mr. Samuel Benton, Dr. Sidney Coupland, Mr. John Hamilton Craigie, Dr. Henry Radcliffe Crocker, Mr. John Henry Drew, Dr. William Ewart Dr. James Kingston Fowler, Dr. Heneage Gibbes, Mr. David Henry Goodsall, Mr. George Lawson, Mr. Henry Morris, Mr. Francis Mason, Mr. Edmund Owen, Dr. Sansom, Dr. Charles Brodie Sewill, Dr. Gilbart-Smith, Dr. William Heath Strange, Mr. W. J. Walsham, Dr. Theodore Williams.

On Thursday, March 8th, the Fellows of the Society dined together at the Criterion Restaurant.

HARVEIAN SOCIETY OF LONDON.

AT the meeting on March 1st, 1883, the President, E. Symes Thompson, M.D., in the chair,

Mr. EDMUND OWEN made some remarks upon the simple treatment of Congenital Talipes. He said the commonest form was that in which the heel was drawn up and the foot inverted, talipes equino-varus. He had found the best treatment for this form was division of only the tendo Achillis, then the application of a tin splint for three days, after which gentle manipulation should be practised, the heel being brought down and the foot everted. Then a plaster-of-Paris bandage should be applied to the limb in its corrected position, and kept on for three weeks, and then reapplied if necessary. Mr. Owen showed a patient with double talipes equino-varus, on whom he was practising this method of treatment, and put on a plaster-of-Paris bandage.

Dr. PERCY BOULTON then read a paper on the Treatment of Post-partum Hæmorrhage. He pointed out first the differentiation between this and other forms of puerperal hæmorrhage, and after speaking of ordinary cases and their treatment, he discussed the treatment of extraordinary cases or those of the major degree, and passed in review the value of cold, heat, injections of iron, and transfusion. He particularly urged the more frequent use of transfusion, believing that 50 per cent. of those who now die from puerperal hæmorrhage would be saved if no woman were allowed to die without transfusion having been previously tried. He was in favour of direct or immediate transfusion from vein to vein with the simple apparatus used by Professor Schäfer in his experiments on animals, which was cheap, took up no room in the obstetrical bag, and did not get out of order. In the absence of a human blood-giver, he thought a salt-and-water solution, at a temperature of 110° F. and of a strength of one drachm to the pint, should be always used, the quantity of the injection being determined by the result. He gave the following objections to mediate transfusion, in which the blood is drawn first into a vessel and defibrinated: 1. Loss of time during bloodletting. 2. Cooling of blood during whipping, which necessitated artificial heating and further loss of time. 3. Chances of embolism from imperfect defibrination. 4. The necessity of a more or less complicated pumping apparatus, very apt to get out of order and to have fibrin deposited on its valves, and so cause embolism. 5. Contamination of blood with bacteria, either during defibrination or from the instrument rarely used getting fouled inside. He thought the use of a cheap, portable, simple instrument such as he exhibited to the meeting, which could not get out of order, and could always be at hand, and the adoption of a saline solution when a blood-giver was not forthcoming, were the most likely means of popularising this operation.—A discussion ensued.

Rebiews and Notices of Books.

L'Étude et le Progrès de l'Hygiène en France de 1878 à 1882. Par MM. H. NAPIAS et A. J. MARTIN. 8vo, pp. 546. Paris: Masson. 1882.

THIS volume was prepared at the request of the Council of the Société de Médecine Publique et d'Hygiène professionnelle de Paris, by its two secretaries, with a view to bring under the notice of the International Congress of Hygiene at Geneva in September last, the progress of sanitary science in France during the four years which had elapsed since the Congress met at Paris in 1878. Considering that the time available for its preparation was little over two months and a half, the great number of subjects brought under consideration, the careful manner in which they have been treated, and the extent of knowledge required for the production of such a sketch, the reporters must be deemed entitled to high praise for their labours, and to have added to their already established reputations as scientific hygienists. The first chapter treats of the hygiene of childhood from earliest infancy through the school period, and under this head the arrangement of the class rooms and the principles on which they should be lighted, the best forms of school furniture, and the system of school gymnastics are discussed. Mention is made, as an instance of true progress, of the formation of a swimming bath at the Lyceum of Vanves—a valuable addition certainly to a school, but one which we should imagine, from the notice taken of it, to be a novelty in France. If we may judge by the recommendations made in 1878 by the Society of Public Health on the subject of "measures of an immediate and general application" required for the schools in France, and which do not appear as yet to have been adopted, we are forced to conclude that they are very far behind this country in their arrangements for the health and comfort of the children, many of those now in operation being very objectionable. The second chapter is

devoted to the hygiene of food, and gives an account of the establishment, in 1878 and following years, of municipal chemical laboratories for the analysis of articles of food. The necessity for these laboratories is shown by the fact that of 6258 samples of food and drink analysed in the laboratory at Paris during the last ten months of 1881, upwards of 50 per cent. were pronounced bad. In subsequent chapters the hygiene of trades and professions, and of the navy and army are discussed, and under the latter head the necessity for improved barrack accommodation is enforced; the conditions necessary to ensure the health of towns, including the important questions of water-supply and sewerage, and the hygiene and sanitary requirements of the country, are also brought under review. The reports of several commissions appointed by the Minister of Agriculture and Commerce, by the Prefect of the Seine and by the Prefect of Police of Paris, to inquire into the sewerage of Paris and into the effect upon public health of several manufactories in the environs, bear evidence to the existence of a most unsatisfactory condition of affairs in that capital, and fully justify the statements recently made on that subject by our Commissioner in his report upon the typhoid epidemic (see THE LANCET, Jan. 6th, page 31.) The measures necessary to remedy these serious evils have been clearly pointed out by the Commissions above referred to, by the engineers of the municipal service of Paris, and by the members of the Society of Public Medicine, but as yet with little effect. There is evidently a great want of a strong administrative body to carry out the necessary measures of improvement and to enforce sanitary regulations.

A long chapter is devoted to hospitals and similar establishments, and in it an account is given of all the new hospitals erected during the four years included in the Report, illustrated by drawings. In connexion with the hospitals for children, there is an interesting account given of an experiment made at the Maternité of Paris. Dr. Tarnier, struck with the success which attended the artificial incubation and rearing of chickens at the Garden of Acclimatisation in Paris, conceived the idea that the principle might be applied to the preservation of infants prematurely born. He therefore had an apparatus constructed on the same principle as the "couveuse," with certain modifications, and used it in thirty-five cases in 1881-2. The prematurely born infant was placed in this, and retained for periods varying from one to forty days, the mean being five days. Of the thirty-five infants five died, and the condition of the remainder, on being taken out of the "couveuse," is described as very good in five and good in twenty-five cases. During the four years under review, special carriages for the removal of infectious cases were established in Paris, but on a scale totally inadequate to the services required; and schools were organised for the training of male and female hospital nurses.

A chapter is devoted to the subject of the causes and prevention of epidemic and contagious diseases, and includes the regulations for the sanitary police of animals and the measures of disinfection requisite when contagious diseases occur among them. An account is also given of the steps which have been taken to promote and improve the organisation of the public health service in Paris and many of the large towns of France, and a notice of the most recent French works on hygiene. We do not think the book would have suffered by the omission of the programmes of lectures on hygiene delivered at various educational establishments.

It would be impossible in the space at our disposal to enter upon the numerous subjects treated in the Report. We must content ourselves with recommending it to the attention of those interested in the various topics. But they must remember that it professes only to be a study of the progress of hygiene during the last four years in France. It does not lay claim to be a complete treatise on the subject, nor does it make reference to the sanitary conditions of any other country. To those who will take the trouble, it affords the means of an interesting comparison between the conditions bearing upon public health in France and England—a comparison which may furnish useful hints both as to what to do and what to avoid. The volume is illustrated by 229 drawings, which serve to elucidate the various subjects to which they refer, but of which we cannot say much from an artistic point of view.

Medical Diagnosis. A Manual of Clinical Methods. By J. GRAHAM BROWN, M.D. Edinburgh: Bell and Bradfute. London: Simpkin, Marshall, and Co. 1882.

THE author of this manual deserves the thanks of all clinical students (and we may add of teachers also) for the excellent work he has produced. We have been extremely pleased with the accuracy of the statements it contains, no less than with the careful and methodical way in which the whole book is planned; and we may predict for it considerable popularity in a field which has been long occupied by works far inferior to it in thoroughness and exactitude. One deficiency strikes us—viz., the comparative paucity of illustrative diagrams, which are of great assistance in works of this class, and we may call the author's attention to Eichorst's manual as indicative of the extent to which such illustration may be legitimately and usefully carried. Still, it must be admitted that illustrations are not absolutely essential, and it would be a pity if by their introduction such a book as this, on account of its cost, should be placed beyond the reach of students. As a slight indication of the plan of the work, we may add that, commencing with a chapter on the general aspect, condition, and circumstances of a patient, it passes to symptoms concerning the alimentary system, and then successively deals with the examination of the abdomen, the hæmapoietic system, and the circulatory, respiratory, integumentary, urinary, reproductive, nervous, and locomotory systems; and the author has fully availed himself of what are known as "modern methods" in the description and use of instrumental aids to diagnosis.

Questions in Pure Mathematics proposed at the B.A. and B.Sc. Pass and Honours Examinations of the University of London, with complete Solutions. By J. E. A. STEGGALL, M.A., Fielden Lecturer in Mathematics at Owens College. London: John Van Voorst. 1882.

FOR students preparing for mathematical examinations and who are desirous to test their knowledge before the day of trial arrives, this book is useful—especially to those who have wholly, or in great part, studied by themselves and abstained from the use (or abuse) of a coach. The questions are numerous and varied, and the solutions appended to them are clear and easy of comprehension without being diffuse and lengthy. In each subject, one book of reference has, as far as possible, been chosen, thus avoiding the confusion which arises when references are given to so many books. The inaccuracies which mar the usefulness of so many works of a similar class to the one under notice are in it conspicuous by their absence, the proof-sheets having evidently been most carefully revised, and the book is well calculated to aid those for whose use it has been compiled.

AT Higher Broughton last week an inquest was held on the body of a female child, three months old, whose death, according to the evidence of Dr. Husband, whose assistance was sought at the last moment when it could be of no avail, was caused by the administration of a "cough mixture" containing morphia. Five doses of this mixture appear to have been given between Saturday afternoon and early the following morning. The coroner very properly remarked on the folly and danger of foolish and inconsiderate parents dosing their children with nostrums, often containing deadly ingredients, without medical advice.

THE LANCET.

LONDON: SATURDAY, MARCH 10, 1883.

TWO years ago the present Home Secretary, when pressed to institute an inquiry into the management and administration of hospitals by a Royal Commission, replied that the public mind was scarcely ripe on the subject. This objection is no longer tenable. Public opinion has been rapidly maturing, and any further help it may have needed is afforded by a concise but comprehensive criticism of our hospitals in the current number of the *Nineteenth Century*. This article, written by Mr. HENRY C. BURDETT, and based upon fifteen years' experience of hospital management, cannot fail to satisfy the public mind that full and searching inquiry into every department of the general and technical administration of the various charitable and other public medical institutions is urgently needed, and "that to delay the appointment of a Commission of Inquiry is to perpetuate abuses that ought long since to have disappeared." Though those who had given any serious attention to the subject of gratuitous medical relief may not have required the corroboration of the telling facts with which Mr. BURDETT'S article abounds, it must be confessed that their cumulative force is irresistible. It is shown that in London alone scores of hospitals exist that have no public *raison d'être*, and are, indeed, mere frauds; that others are grossly neglected and shamefully mismanaged; and that even at some of the better hospitals irregularities and perversions and misapplications of the spirit of charity prevail. It seems that there are in the metropolis sixteen hospitals of various kinds, and twelve general and provident dispensaries, which do not participate in the Hospital Sunday Fund. "That is to say, there are twenty-eight medical institutions ostensibly ministering to the requirements of the public, which are so conducted that the Council of the Hospital Sunday Fund has not yet been supplied by the authorities of these institutions with the small amount of evidence of their efficiency which the Council require before it will consent to entertain an application for a grant." This is a silent but significant reflection on the *modus vivendi* of some of the so-called medical charities, especially when it is borne in mind that the Council of the Hospital Sunday Fund practically exercises no control over the management of the metropolitan hospitals beyond an audit of accounts, and that it never sends a properly qualified representative to inspect the institutions to which it allows grants from the Fund.

his circumstance illustrates one kind of abuse. At the other end of the scale Mr. BURDETT takes the instance of the Casualty department of St. Bartholomew's Hospital. In the volume of Reports for the year 1878, Dr. R. BRIDGES published "An Account of the Casualty Department." From this it appeared that in the course of the year 190,000 casualty patients were seen. The rate at which the patients had to be seen was seventy-five per hour; in other words, a presumably sick person had to be examined, his ailment diagnosed and prescribed for, at about the rate a rapid writer could take down the name and address. Between these extremes there is every degree and kind of evil and abuse. The hospitals are overcrowded, especially in the out-patient departments; persons apply for relief who are unsuitable either because they are paupers and are otherwise provided for, or because they can afford to pay; the accommodation for both in- and out-patients is scanty, imperfect, and sometimes positively noxious; the financial administration is often extravagant, reckless, and uncontrolled; the managers are self-elected, irresponsible, and resentful of outside criticism; the medical staff, in addition to being non-remunerated, frequently falls short in numbers of the requirements of the patients.

The remedies which Mr. BURDETT proposes are chiefly three—namely, reduction of the number of patients, increase of the out-patient staff, and adequate payment of this staff from the hospital funds. On the last-mentioned subject he says: "It is time the medical profession endeavoured to convince the public that, whereas they are as ready as ever they were to give the benefit of their skill and experience on behalf of the poor, still the time has arrived when the anomalous condition which requires them to do more public work for nothing than all the other professions put together should cease. An inquiry into our hospitals would," he adds, "astonish many people, by proving the cruel injustice which the existing system entails upon a large body of educated gentlemen, who deserve better treatment at the hands of all who are responsible for the present condition of affairs."

The other remedies recommended by Mr. BURDETT are equally commendable with those already enumerated, though not so easy of application. An amalgamation of all the hospitals, dispensaries, and Poor-law agencies in each locality and throughout the country would, he argues, be a powerful adjuvant to effectual reform. This amalgamation has been repeatedly advocated in these columns, and has been successfully tried at some provincial medical schools. An association of the managers of all medical institutions might, by periodical conferences, assist in the removal of some of the more obvious defects of hospital administration. Chiefly, a guarantee of the *bona fides* of hospitals by some central controlling authorities, assisted by competent inspectors, is, in Mr. BURDETT'S opinion, indispensable. The duty of this controlling body would be to exercise an authoritative supervision over the erection, extension, and administration of all hospitals and institutions for the care of the sick throughout the country. To this authority all the charities should be made to submit annual returns, setting forth in an identical manner the details of their incomes and expenditure, and giving an account and scientific record of the diseases treated. By means of supervision, inspections, and criticisms, this authority could not only encourage improvement and check abuses, but it could guide the public mind in the disposal and distribution of its eleemosynary aid. It might further devise some practicable scheme of certifying the fitness of every person applying for gratuitous relief at hospitals. These, and the difficult problems of paying hospitals, can only be dealt with by a Royal Commission, and this we demand alike in the interests of the sick poor and the medical profession.

THE case of post-vaccinal death on which we commented briefly last week derives its chief importance from the character of the medical evidence given, in the first instance at the inquest and subsequently at the Clerkenwell Police Court, by the practitioner who attended the child after its removal from the workhouse, and by the pathologist who by order of the coroner made the post-mortem examination upon it. The evidence of these gentlemen went to show that the child's death was indirectly attributable to vaccination; and though by itself it was clearly insufficient to prove that Mr. DUNLOP was guilty of manslaughter, it might seem almost to justify the prosecution which the mother, at the instigation and with the aid of the Society for the Abolition of Compulsory Vaccination, instituted against him. For it may be taken for granted that this Society had no particular wish to punish Mr. DUNLOP; but that its aim was to discredit vaccination by exposing the dangers by which it is attended, and by proclaiming to the public that the directions issued by the Local Government Board in regard to it are reprehensible and mischievous.

We will recapitulate the main facts of the case as they were given in evidence. The child, the illegitimate daughter of a girl of sixteen by a boy only two or three years older, was born in the St. Pancras Workhouse on the 10th of last December. It was at full term and healthy. On the 16th it was vaccinated, being still in a healthy condition. On the 23rd the arm was inspected, and found to be going on favourably. On the 24th (against the advice of Mr. DUNLOP) the mother removed the child to an unfurnished apartment in the neighbourhood of the Gray's-inn-road, where she and the father took up their residence. The child was still in good, at any rate in fair, health. On the 27th or 28th the first signs of illness were noticed, and on the 29th the child was taken to a practitioner's surgery. At that time the wounds looked unhealthy, and there were some erythematous redness and swelling of the forearm. The child is said to have been partially comatose. It was taken to this gentleman on two or three subsequent occasions, the arm at first getting worse, but at length improving under treatment, while the coma and debility gradually increased. Its death took place on Jan. 7th.

It was proved that the parents were in extreme poverty, that their apartment was miserable and unfurnished, and that the child during its illness was injudiciously and improperly fed. The post-mortem examination was made on Jan. 11th. The body was emaciated, and no sores were present, save those resulting from vaccination. These had run together, and formed an open suppurating wound, unattended, however, with marked infiltration of the surrounding or subjacent textures. The axillary glands on the same side were somewhat enlarged. All the internal organs, with the exception of the brain, were absolutely healthy; but the surface of the brain was covered with a layer of pus, about one-tenth of an inch thick, limited to the subarachnoid tissue. There was also some congestion of the pia mater. In all other respects the brain was healthy.

On these data it was asserted, without any reservation or qualification whatever, that the death of the child was due to the absorption of pus from the post-vaccinal ulcers, or in other words to pyæmia, taking its origin from these sores. On cross-examination, however, it was admitted that such inflammation of the meninges of the brain as was present might result from cold or injury, or some other like cause. Now, it is known that the symptoms of pyæmia are for the most part quite characteristic, and the post-mortem appearances are, almost without exception, unmistakable. No doubt cases are occasionally met with in which the phenomena observed during life are vague or misleading, or in which the lesions discovered after death are so slight as scarcely to justify a definite opinion with regard to them. But even then the post-mortem evidence usually supplements the symptomatic evidence, or conversely, and we are seldom left in doubt. We have clearly no right to assume the presence of pyæmia when neither the symptoms nor the morbid appearances point to it. Now, in the case of this child not one specific symptom of pyæmia is recorded as having been observed during life. The affection for which it seems to have been treated was inflammation of the arm, which was subsiding at the time of death; and the only other evidences of disease were such as would have resulted from the meningitis which was in progress. There were no clinical grounds whatever for the diagnosis of pyæmia, and no such diagnosis seems ever to have suggested itself. Again, the post-mortem examination revealed nothing that can be regarded as in any way characteristic of pyæmia. The only lesions discovered were the suppurative inflammation of the membranes of the brain and the ulceration of the left arm. There was nothing to show that the ulceration was of such a character as to be a likely cause of pyæmia, and indeed open sores seldom if ever induce it; there was no proof afforded that the tissues in the neighbourhood were infiltrated with pus, or that the veins were implicated; the axillary glands were only affected as they always are after vaccination, and moreover inflammation of lymphatics does not lead to pyæmia; there were no infarcts in the lungs, heart, kidneys, or spleen, or even in the substance of the brain; there was no affection of the serous or synovial membranes or of the bones; there was not even congestion or pneumonic consolidation of the lungs; not even petechial spots in the serous membranes. In fact, there was not only no trace of any of the usual indications of death from pyæmia, but the organs generally were not even softened or congested, as one finds them usually in cases of "blood-poisoning." And, further, the condition of the brain was not what we meet with in pyæmia. It would perhaps be wrong to assert that general suppurative meningitis never occurs in this affection, but it is so rare that many of the most experienced pathologists have never met with it, and it is certainly not the intra-cranial lesion which characterises pyæmia. The condition of the membranes, on the other hand, was exactly that which attends epidemic cerebro-spinal meningitis, and which is also not unfrequently met with as an idiopathic disease, mainly in young children, and appears to be induced by the conditions (whatever they are) which induce various other internal inflammations, that are common causes of death in young, imperfectly nourished, and neglected infants. There is no doubt, of course, that the child died of so-called "idiopathic meningitis;" there is equally no doubt that it did not die of pyæmia.

The question, however, as to whether the meningitis had any dependence on the vaccination is not disposed of

by getting rid of the pyæmic hypothesis. It is not easy to determine what are the precise causes of the inflammatory and other diseases which are so largely fatal to young children. Exposure to cold, improper food, unhealthy surroundings, neglect, are no doubt concerned in various degrees in their causation; and here all such conditions were conspicuously present, from the time the child left the hospital in fair health and with a favourable arm, up to the day of its death. The history of the case does not clearly reveal to us the relation in point of time between the commencement of the extension of inflammation around the vaccinal pustules and that of the meningitis. There is no more proof, however, that the meningitis was caused by the inflammation of the arm than that the inflammation of the arm was secondary to the meningitis. The probability, however, is that their occurrence was simultaneous, and that they were the concurrent consequences of the insalubrious conditions in which the child was placed.

We repeat that while we congratulate Mr. DUNLOP on the failure of the prosecution to establish any neglect or error of judgment on his part, we regret that an opportunity was not afforded of adducing the evidence of the eminent medical experts who were in court and prepared to prove that the disease from which the child died had, almost certainly, no connexion with vaccination.

PERSONAL health is as important to the community as to the individual. A nation of sick persons or of infirm invalids would quickly cease to be a nation at all. It may seem superfluous even to assert so obvious and trite a fact, but it has a corollary not less true and not less obvious, the importance of which is far from being practically realised. All sickness and all infirmity entail a national loss, actual and definite, in consequence of which the nation is not only weaker, but is also poorer. We are so accustomed to the presence of disease that we imperfectly appreciate its influence on national prosperity, although we realise to the full its blight on the individual life. Pity stirs benevolence to acts of charity for the relief of suffering, and alarm dispels for a moment the apathy which hinders sanitary progress; but compassion is a limited, and fear an evanescent, motive, compared with the self-interest which, whatever ought to be, unquestionably is the ruling force of public action. The national purse is the only weight which surely excites and persistently maintains the national energy. If the nation realised the extent to which it is impoverished by preventable disease, rendered poorer by definite loss of that wealth of which money is the token, it would bestir itself in the cause of sanitary science in a manner that would quickly yield results, of which at present an approximate conception can scarcely be formed. The loss is not realised because, like indirect taxation, it does not obtrude itself in its naked simplicity. It is one of the drawbacks to charitable institutions for the treatment of disease that one part of the cost of preventable disease is unperceived. If the whole expense of the treatment of such disease were defrayed by separate taxation, its purpose distinctly specified, the eyes of the public would be opened in an effectual manner to one of the elements, and that the smallest, of the loss which they sustain from this cause. The cost to the community of the treatment of those suffering from preventable disease is not inconsiderable, but it bears a small proportion to the loss entailed by the temporary withdrawal of adult sufferers from the production of national wealth, and by the absolute loss of present and future workers in consequence of the fatality of those diseases. Of the sum to which that total loss amounts, no accurate conception can be formed, but an approximate estimate will certainly startle unreflecting persons. A curious attempt has recently been made in France to assess the loss from one disease. In the course of the discussion on typhoid fever, which still drags its slow length along at the Paris Académie de Médecine, M. ROCHARD presented an estimate which he had made of the loss entailed by typhoid fever in Paris. Although some of the bases of his calculation are hypothetical, the estimate is of much interest as one of the most careful attempts yet made to ascertain and state the money loss to the nation involved by one of the most common, most formidable, and most certainly preventable diseases.

During the year 1882 typhoid fever caused in Paris 3276 deaths, out of a total number of 58,674. In 1881 the deaths were 2120, out of a total of 56,820. Thus, the mortality from typhoid fever was greater by 1 per 1000 in 1882 than in the preceding year. Moreover, during the past ten years, the total number of deaths has presented a progressive increase. Ten years ago the mortality oscillated between 21 and 23 per 1000, in 1881 it was 25·37 per 1000, and in 1882 it was 26·55 per 1000. Of the 3276 deaths due to typhoid fever last year, 1449 occurred in the hospitals and 1827 at home. The number of cases in the hospitals was 9361, equal to a mortality of 15·47 per cent. The total cases treated were in hospital for an aggregate period of 240,083 days, giving an average to each of 25 days. Each day's treatment costs the authorities 3 francs 10 centimes, making a total cost of 744,257 francs for the whole number. But it is manifest that the three weeks' treatment in the hospital does not represent more than a part of the time during which the patients would be withdrawn from their occupations. It is not too much to estimate the total incapacity resulting from an attack of typhoid fever at two months—one month of illness, and one of convalescence. Now the municipal statistics of Paris show that more than a third of the victims were men between fifteen and thirty-five years of age, the exact proportion between these ages being 39·43 per cent. It cannot be an excessive estimate to value the labour of these men at 2 francs a day, taking one with another. The two months each would give a total of 563,660 working days lost by the 9361 patients, and correspond to a sum of 1,127,320 francs to add to the 744,257 francs expended by the authorities in their treatment, making a total for the hospital cases of 1,871,570 francs.

There are, further, the cases which died at their own homes. If the mortality was the same as in the hospitals, an assumption the least favourable for the calculation, this number of deaths would correspond to 11,830 cases. It cannot be supposed that the cost of the treatment of these patients was less than that of the cost to the authorities of the hospital cases, nor that the total period of incapacity would be less. On the same basis of calculation, we have, for these patients, a loss of 2,360,157 francs, which, added

to that for the hospital cases, gives a total loss of 4,231,727 francs.

So much for the bill of the disease. But what of its mortality? Fifteen per cent. of the cases were fatal. That is to say the individuals were lost to the nation, not for two months, but for whatever may have been the probable duration of their lives. It is obvious that such a loss must be incomparably greater than that occasioned by the mere illness. But how can it be assessed? That some estimate is possible cannot be denied. It is true the life of a man, morally regarded, is of incalculable value; but the loss to the community of his productive energy is calculable, had we only the adequate data for the estimate. The value must vary in every country and in every race. By a method which he does not specify, and for another purpose, M. ROCHARD had arrived at the conclusion that it is not too much to estimate the money value to France of the life of every man of the age of twenty years at 12,000 francs (£480); but as all the victims of typhoid fever do not present these conditions, and as it is necessary to include the lives of little or no money value to the community, he takes 6000 francs (£240) as the average value of each of the 3273 lives. These represent, therefore, the enormous sum of 19,656,000 francs, which, added to the cost of the disease, gives a definite total of 23,887,727 francs, or very nearly £1,000,000.

It is evident that the bases of this calculation are to a considerable extent uncertain. Moreover, there are some distinct errors which may reduce in a slight degree the total sum. From the estimate for the month of convalescence, for instance, M. ROCHARD has omitted to deduct the proportion of fatal cases, to which convalescence never came. But the reduction from these corrections would be comparatively small, and the element of uncertainty does not prove that the figures are too high; they may be below instead of above the true sum. Moreover, it does not follow that by any practicable means the whole of these deaths could have been prevented; but that many of them might is certain; and if we consider how large is the mortality from other diseases as preventable as typhoid fever, it is evident that the pecuniary saving which sanitation has the power to effect is enormous. M. ROCHARD makes, for instance, an assumption which is certainly a modest one. He supposes that, by a combined effort of endeavour and capital, it may be possible to reduce the mortality in Paris from its present figure to that at which it stood ten years ago—21·58 per 1000, the average of the three years 1872, 1873, and 1874,—instead of that which was reached last year. This would be the saving of 11,182 lives, equivalent to an annual saving of 67,092,000 francs. Even if he has taken too high a figure, and estimated each life at double its actual value, there would still remain an annual saving of 33,546,000 francs a year, a sum which represents a capital of no less than 670,920,000 francs (£26,836,800); and this estimate is for Paris only!

The practical lesson is that, whatever be the figures taken, an enormous outlay on efficient sanitary measures may prove to be an actual and great economy, and result in a saving not only of life but of wealth. "Nothing is so costly as disease, excepting death; no waste is so extravagant as the waste of human life."

AT one of the January meetings of the Berlin Medical Society, Dr. E. KÜSTER read a paper on a Case in which he had removed a Tumour from the Sternum and Anterior Mediastinum; and the case is so important that we are anxious to draw attention to the report of it, to be found in the *Berliner Klinischer Wochenschrift*, Feb. 26th. The patient was a healthy-looking, robust man, aged thirty, who on his admission to the Augusta Hospital did not complain of any illness. He denied any syphilitic infection, and there was no evidence of this diathesis. In the winter of 1881–82 he felt for some months dull pains in his chest, and in April, 1882, he observed a tumour on the right side of the sternum which had slowly increased. He had been treated by iodide of potassium for six weeks, and during that time the swelling had increased. Projecting forwards from, and adhering to, the right border of the sternum was a tumour the size of a goose's egg, which also involved the third and fourth rib cartilages, and dipped deeply into the chest between them. The surface of the tumour was smooth, and the skin over it slightly reddened. The tumour was elastic and gave a sensation of deep fluctuation; no pulsation was detected in it. Heart and lungs were found to be normal. The tumour was punctured with a fine syringe and a few drops of blood escaped, and the end of the needle appeared to be freely movable in a cavity. The result of this puncture was held to exclude aneurism, the absence of all history or other evidence of syphilis led to the exclusion of gumma, and the tumour was diagnosed to be a sarcoma. On October 27th Dr. KÜSTER proceeded to remove this growth, adopting full antiseptic precautions. The first step of the operation was the raising of a large flap of skin from below, off from the tumour. The third and fourth rib cartilages were cut through, and half the breadth of the sternum was detached with a chisel. A narrow kind of stalk of the tumour dipped down into the anterior mediastinum, and there was continuous with a broad mass. In detaching this deeper part the internal mammary artery was cut, and as it could not be secured by a ligature the bleeding was stopped by acupressure; on peeling the tumour from the right pleura a small aperture was made into that sac, and the lung was seen to collapse immediately; a piece of folded gauze was pressed over this wound, and the tumour finally separated by detaching it from the pericardium, which was not injured. The wound was then closed, one end of the piece of gauze over the pleural wound being made to project from under the flap of skin which was pressed down by pads into the gap made by the removal of the tumour. The patient made a good recovery, and was shown to the Berlin Medical Society in December last. No lung complication came on. At first the pulsations of the heart were perceptible, but as cicatrisation advanced the hollow became more and more filled up, and pulsation was abolished. The tumour was found to be a gumma; the central part consisted of detritus, and surrounding that was a zone of granulation-tissue composed of round and short spindle-cells, and the outer layers of the tumour were composed of firm cicatricial tissue. Are we to admire or to condemn this operation? KÜSTER admits that his diagnosis was erroneous, but contends that the sequel justified his treatment; and that had he known the tumour was a gumma softening, and degenerated in its centre, it would have been the right course to excise it. For he states that

gummatous tumours, encapsuled in cicatricial tissue, and undergoing regressive metamorphosis in the centre, are not curable by iodide of potassium, but only by elimination; while in this position a softened gumma is a source of great danger from its liability to burst into the pleura, pericardium, or one of the great vessels, and cause instant death. He refers to KÖNIG'S case of excision of an osteo-chondromatous tumour of the sternum, in which both pleural sacs and the pericardium were opened, and the two internal mammary vessels were divided. The patient, a woman, aged thirty-six years, recovered. After a short review of the varieties of tumours met with in this region, KÜSTER recommends an operation for cases of dermoid cyst and lipoma of the anterior mediastinum, and excludes the rapidly growing and very malignant lympho-sarcomata of that region. He asserts that with our existing means of treating wounds with the certainty of avoiding sepsis, the only great danger of these operations is the occurrence of double pneumothorax. In some very favourable cases the pleura—one or other—escapes uninjured, but care should be taken to have a compress of carbolic gauze ready to be placed over any wound made into the serous sac. This compress can be withdrawn from the wound as the healing progresses. It is impossible to deny that these cases of KÜSTER'S and KÖNIG'S are triumphs of operative skill and surgical treatment, and they demonstrate the possibility of so bold a measure being carried out with success. But should these cases remain as surgical curiosities or as models for future imitation? Opinions will differ. We believe that many will affirm that the operation was quite unjustifiable in KÜSTER'S case of a gumma. The history of the case does not afford any evidence that the tumour had proved quite unaffected by a prolonged course of anti-syphilitic remedies, and it is impossible to accept KÜSTER'S limitations of the power of iodide of potassium to induce absorption of gummata when either degenerated or encapsuled. And as to his argument of the danger attending gummatous growths in this region, even admitting its truth and force, it is impossible not to feel that the perils of the operation of excision are vastly greater. The operation must always be a desperate one, demanding great operative skill and experience and a complete mastery of the aseptic treatment of wounds, and even then it will be justified only in cases where it is the sole means of obtaining relief from serious disease, and there is a fair prospect that the relief obtained will be permanent.

AT the monthly meeting of the Wallasey Local Board held on the 1st inst., a resolution previously passed by the Board to purchase two and a half acres of land in Mill-lane for the site of a hospital for infectious diseases was unanimously rescinded, and a recommendation of the committee that three acres of land fronting Mill-lane be bought for the purpose in lieu of the site previously proposed was adopted, a gentleman having offered to purchase the remainder of the plot, about ten acres, and present it to the parish (through the Local Board) on condition that the Board ultimately lay out the land as a suitable recreation ground, and in future maintain it in efficiency according to the usual regulations of public parks. A protest against accepting this offer was entered by one of the Board until an estimate of the probable cost of carrying out the conditions attaching to the gift was furnished.

Annotations.

"Ne quid nimis."

THE PROPOSED CONJUNCTION OF THE ROYAL COLLEGES IN ENGLAND.

IT may be remembered that in October last, somewhat unexpectedly, a Committee was appointed by the Royal College of Physicians to consider and report, as early as possible, what combination the College could best enter into for examination purposes, so as to secure for England, without further delay, one complete Pass Examination Board, which should be satisfactory to the Profession, the Medical Council, and the Government. This act was, it appeared, intended to afford an opportunity for reconsidering an invitation that had been issued by a Committee of the Council of the Royal College of Surgeons in July, 1880. This invitation asked the President of the Royal College of Physicians, with a number of delegates, to meet and confer with a Committee of the Council of the Royal College of Surgeons, on the practicability of establishing a joint examination in medicine, surgery, and midwifery. This invitation was declined by the College of Physicians on the ground that, being bound by the terms of the Conjoint Scheme, dated May 1st, 1877, it could not take part in the formation of any other examining Board until after the expiration of five years from the 1st of October, 1877. Though this interpretation was alleged to be "totally at variance" with that which had always been held by the College of Surgeons, the matter was allowed to drop till revived by the College of Physicians. On Dec. 14th, in compliance with the request of the College of Physicians, the Council of the College of Surgeons appointed seven delegates to meet and confer with a sub-committee of the College of Physicians on the possibility of combination of the two bodies, for the establishment of a complete conjoint medical and surgical examination. So much is history; what follows is mere rumour. The delegates have met and prepared a report, which was considered by the Council of the College of Surgeons on Thursday last, and will, we believe, be discussed by the Fellows of the College of Physicians on Monday next. By some technicality, this report, which is intended to be "satisfactory to the profession, the Medical Council, and the Government," is, we understand, to be considered private till accepted formally by the executive of the two Colleges; or, in other words, till it is too late for the profession to have any voice in the matter. Though we have no wish to treat the doctrine of *Secreta Collegii* with unbecoming levity, we may venture to repeat current rumour. This rumour encourages the opinion that the recommendations of the delegates are drawn in favour of the material interests of the two Colleges rather than of the higher interests of the student and medical education generally. It will probably be found that it is proposed to compel all candidates for the diplomas of the College of Surgeons and the College of Physicians to pass all the examinations now required by the two bodies separately; that there will be, as at the College of Physicians already, three examinations: the first in chemistry, heat, light, electricity, materia medica, botany and pharmacy, elementary anatomy and elementary physiology, at the end of the first year; the second in anatomy and physiology at the end of the second winter session; and the third in medicine, surgery, and midwifery two years after passing the second examination. If this be so, it will be seen that the old evils are not only continued, but considerably increased. More subjects are crowded into the compulsory curriculum, a greater number of subjects have to be passed, and yet the period of study is not extended. If, in addition, it be true, as currently reported, that the fee for the conjoint exami-

nation is to be thirty-five guineas—that is, the full existing fees of both Colleges—it does not require much perspicacity to predict that the arrangement will be satisfactory neither to the profession nor the Government. The cost of a diploma will be enormously increased, and the inevitable result will be to drive candidates elsewhere for a cheaper and more attainable qualification. Unless we are wholly misinformed, the "combination" adds another complication to the licensing system in the United Kingdom, and exaggerates the disparity between the various examining boards. Those who look to the Government for speedy and effective legislation, may be congratulated on the latest phase of voluntary combination.

ARMY ESTIMATES.

THE charge in the army estimates for 1883–4, under the head of medical establishments and services, is stated at £311,000, being an increase of £8200 upon that of the preceding year. This occurs chiefly in the pay of militia surgeons and civilian medical practitioners, and to a slight extent also in the increased pay of medical officers from length of service. The *personnel* of the Medical Department remains the same as last year, except that only fifteen surgeons on probation are taken instead of twenty-three. The amount required for the pay of the administrative officers, including the Director-General, is £22,784; of the executive officers, £106,600; of acting medical officers, £24,283; and of surgeons on probation, £2403. To this must be added £10,568 as allowance in lieu of servants and mess allowance. The pay of the militia surgeons for the year, including allowance for medicine, is estimated at £11,500, being £2000 in excess of the preceding year, and the pay of civilian medical practitioners and medical officers of military prisons at £5900, being an increase of £1600; there is also a sum of £1600 taken as "pay of civilian medical practitioners to replace medical officers serving in Egypt." The increased cost of the militia arises from the proposed calling out of the Irish militia for training, and that of the civilian medical practitioners is owing chiefly to the scattered state of the troops in Ireland. The Army Hospital Corps, which shows an increase in strength of nine sergeants and sixty-nine men, requires for regimental pay £74,600, and for departmental and extra duty pay £21,500. A sum of £3300 is taken for "pay of nurses to women's hospitals, extra duty pay of regimental hospital orderlies, and miscellaneous labour," and £1400 as "pay of additional hospital orderlies and nurses to replace men of the Army Hospital Corps serving in Egypt." The cost of medicines and medical instruments amounts to £23,000, including medicines for lock hospitals and the militia. The charge for the medical school at Netley is £6318, including £400 to the examiners of candidates for the medical service. This shows a decrease of £261 upon the preceding year, arising apparently from a difference in the rates of pay of one of the professors and of the assistant-professors. We regret still to observe in the estimates a charge against the Medical Department of £1416 for the Governor and Commandant, and Assistant-Commandant, of Netley Hospital, with their office establishment. The anomaly of a time-expired depôt in the invaliding hospital was abolished last year, and we had hoped that Mr. Childers would have removed the whole of the military establishment with it, but this unfortunately he did not do, and the fifth wheel to the coach still remains. We trust Lord Hartington may see his way to retrench this needless expenditure of £1400 per annum. Under the non-effective services there appears a charge of £3688 for medical officers and £54 15*s.* for a lieutenant of orderlies on half-pay, but eligible for employment; and the retired pay of medical officers amounts to £141,500, and of captains of orderlies to £350. The number of administrative medical officers on the retired list is sixty-four, and of executive 315, and there are three captains of orderlies. There has been no change during the past year in the list of fourteen medical officers receiving the reward for distinguished or meritorious services.

THE GOVERNMENT AND THE METROPOLITAN ASYLUMS BOARD.

THE Metropolitan Asylums Board have now decided to act upon the report of the Royal Hospitals Commission, and to secure sites for small-pox hospitals outside the populous parts of London. They will probably construct some floating hospitals on the Thames, and secure river-side sites near the hospital-ships; and it is further expected that they will follow the precedent afforded by the last epidemic, and provide accommodation at some distance in the country for convalescents. But it is felt that such measures cannot be undertaken without additional powers, and it has been decided that the Government shall be asked to secure for the managers the necessary compulsory powers of purchase. Opposition is, however, already threatened; for at a conference of metropolitan Poor-law guardians a resolution was passed declaring that the small-pox hospitals of the Metropolitan Asylums Board have spread disease in their vicinity, that since their establishment the small-pox deaths in London have been doubled, and that the money of the ratepayers has been spent extravagantly. It was further decided that these views should be laid before the President of the Local Government Board by means of a deputation, who should urge the appointment of a general inquiry into the constitution, management, and expenditure of the Asylums Board.

THE CLOTHING OF CHILDREN.

FROM both the lay press and from the public platform we have heard of late a good deal as to the unhealthiness and unsuitability of the present form of female dress. Much that has been said is useful and true, although the subject has been associated with some intemperate denunciation of the costume of the day, and some violent suggestions as to the attire of the future. While sympathising in the main with this matter of dress reform we think that some of the attention at present absorbed by the costume of the adult may well be bestowed upon the apparel of the child. In many respects the dress of young girls is more outrageous to the principles of health, and more in need of the strictures of a vigorous criticism, than is the costume of the fully developed female. Note for a moment the usual dress of the little girl as sanctioned at the present time. One of the first principles in dress is that the clothing should so cover the body as to maintain it in all parts as far as possible at an equable temperature. How is this principle observed in the attire of a child of five or six years old? About the thorax and abdomen there are many layers of clothing of a somewhat incongruous character and somewhat indiscriminately applied, that are capable collectively of maintaining a reasonably even temperature. The arms, however, are commonly bare from the shoulders, and the child can exhibit upon those limbs the familiar effects of external cold upon the circulation of the surface. The lower limbs also are covered by a short and scanty skirt, and by meagre petticoats separated from the extremities they are supposed to warm by an encircling ring of cold air. From the united effects of unsuitable material and inconsiderate application it comes to pass that the little girl of modern days wears more clothes than she needs, and is saddled with a burden that while it impairs the free use of the limbs involves at the same time a fair amount of needless muscular effort. Linen, it is unnecessary to say, is from its poor hygroscopic qualities, and from its active properties as a

good heat conductor, a very unsuitable substance to be worn next to the skin, especially in a climate subject to abrupt changes of temperature. In the clothing of young girls, then, some woollen fabric should be worn next to the skin, and should clothe the entire body as evenly as possible. For this purpose no better garment can be adopted than the so-called "combination" garment. The dress should be suitably long, and should be so made as to be suspended from the shoulders, and not from the waist. The petticoat also should be attached to an under-bodice, which, like the dress, should receive its attachment from the shoulders. The stockings should be suspended from this bodice, and socks should be entirely discarded as affording but a partial covering to the limbs. The neck, again, should never be left wholly uncovered. The ornamentation of the dress should be as scanty as possible, and should aim at making the least possible addition to the weight of the attire. We venture to think that if such an attire be worn, we shall hear more of boisterous health and less of "backaches" and "growing pains."

THE MEDICAL INSPECTION OF SCHOOLS IN FRANCE.

THE very prevalent belief that it was the influence of the German schoolmaster rather than the strategy of General von Moltke that led to the crushing defeat of the French armies in 1870, has contributed to abnormally develop the cry for education among our neighbours. During the last seven years about four thousand new schools have been built. Fortunately the question of education has not been allowed to override equally important considerations of health. The medical and sanitary societies have all discussed the various points involved, and have succeeded in exercising considerable influence at least over local administrations. Since 1878 several municipalities have appointed medical inspectors for the schools; and in June, 1879, the Council General of the department of the Seine decided that the schools of the entire district should be placed under regular medical supervision. For this purpose it has been necessary to appoint 114 medical inspectors, each at a salary of £24 per annum. These functionaries must be fully qualified practitioners; they must visit all the schools in their locality twice a week; see to the drainage, lighting, warming and ventilation of the buildings, report on the health of any of the pupils who may show signs of indisposition, give warning in cases likely to prove contagious, insist on the removal of fever patients, and give advice as to disinfecting, &c. These duties if properly fulfilled are, it will be seen, of so arduous and responsible a character that the remuneration given is, even for France, totally inadequate. The authorities at Lyons have shown a better appreciation of the services to be rendered. By competition they have selected eight medical school inspectors at salaries of £60 per annum. The appointment lasts for six years. The inspectors cannot be removed, but they cannot be re-elected. This latter rule is enacted for the purpose of introducing every year two new inspectors, so that the most modern ideas respecting practical hygiene may with the constant infusion of new blood make themselves felt in the schools. One of the principal results as yet attained is the improved physical training of the children. Thus in Paris there were only 13,692 children following a course of gymnastics in 1872, with but 117 teachers. Two years later there were six female teachers and more than 200 girl pupils. But in 1881 there were 238 female teachers and 354 male teachers; 41,041 boy pupils and 23,335 girls. The introduction of physical training among girls may be considered as an altogether modern progress, and is a notable feature in the administration of French schools. Swimming-baths are also greatly encouraged, and much attention is given to the position of pupils while sitting at their desks and the nature of the light provided in the schoolroom. But with regard to drainage, ventilation, isolation, and disinfection there still remains much, indeed almost everything, to be done.

CRUELTY IN SPORT.

MR. ANDERSON, Sir Frederick Milbank, Mr. Samuel Morley, Mr. Jacob Bright, Mr. Passmore Edwards, and Mr. Buchanan have brought in a Bill (which has just been committed *pro formâ*) to amend the Cruelty to Animals Acts, 1849 and 1850, so that the provisions of those statutes may be extended to the prohibition of cruelty in sport to "any vertebrate animal, whether of domestic or wild nature, kept in confinement or captivity." The principal aim of the projected measure lies against pigeon shooting from traps or liberated by the hand; but there can be no question that, as the Bill is drawn, it will interdict the hunting of "carted deer" and "bagged foxes." These secondary prohibitions are much deprecated by Lord Walsingham and others, and efforts are being made to influence the "Press" and, through it, public opinion against the measure. With the keenest appreciation of the pleasures of sport in its true sense we most heartily support the Bill as it stands. Trapped pigeon shooting and hunting carted deer are not sport. We see nothing to qualify in the measure, and we should be glad to see retained the second clause—which defines the word "animal" to include any vertebrate animal kept in confinement or captivity,—and which it is proposed to omit. The shooting of scared pigeons let loose from traps has long been a scandal, and by the decision of the Legislature is now doomed. In the interests of true sport—that is, the shooting and hunting of wild animals—it is of the highest importance that false "sport," wrongly so-called, and debasing to the public mind, should be abandoned; and, as it would seem, the only way to bring about its abandonment was to move Parliament to interdict it by law. This has now been attempted, and our best wishes are with the promoters of the measure, albeit we should have been glad to see the names of Members of the House of Commons known in sporting circles at the back of the Bill. Probably Lord Walsingham's alarm lest the Master of the Buckhounds should hereafter be fined five pounds for breaking the law, under the proposed new Act, is shared by gentlemen who must surely sympathise with the main purposes of the measure, although they may demur to certain of its collateral effects.

THE CIVIL SERVICE AS A CALLING.

IT seems certain that considerable dissatisfaction exists in the Civil Service. The competitive system of election and the high pressure rate of work in some branches are evidently not without great disadvantages, though it is to be hoped there will be no reversion to the old and corrupt system of making the Services mere provisions for the more incapable sons of Ministers, and other supporters of the party in power. We want a system that will give us not merely the cleverest but the best Civil servants, and one which, when we have got them, will not kill them by worry and long hours and pressure. It is an old remark that while competition may decide which man is the sharpest reckoner and the best linguist, it cannot determine which is the man of most common sense, of best administrative qualities, of soundest health; and no person will deny that these qualities have as much to do with efficiency for the public service as purely intellectual accomplishments, which are not always lodged *in corpore sano*. Besides, the sanitary conditions of the Civil Service are often very inferior to what might be expected. In the Post-office department, which yields a revenue of over three millions to the State, we hear there is great pressure, and that financial considerations

exclude proper regard for the health of the *employés*. This is also said to be true of the Savings' Bank department, in which clerks are encouraged to work thirteen hours a day in crowded rooms, heated and lighted with gas! A more certain manufactory of consumption could not be imagined. We have heard of an instance in Queen Victoria-street where nearly one hundred of these *employés* are housed in a basement where gas is burning on the brightest days.

OLFACTORY MEASUREMENTS.

VERY interesting facts have been ascertained regarding the time required for the stimulation of the various organs of special sense, and for the perception of the results of the stimulation. The time is measured from the commencement of the stimulation to the moment at which the individual makes a signal that he has perceived it. The measurement has been made for auditory, tactile, visual, and gustatory sensations; but until recently no observations have been made on the sense of smell. This defect has now been supplied by two independent investigators, Dr. Buccola of Turin and Dr. Beaunis of Nancy, who have arrived at results almost identical. The conclusions of the latter have recently been published in the *Gazette Médicale de Paris*. In these experiments the odorous substance was placed in a closed bottle. If not a liquid, it was dissolved in alcohol or water. Two holes were made in the cork of the bottle, and through these two tubes were passed, one reaching nearly to the level of the liquid, the other ending in the upper part of the flask. The end of the former was connected with an india-rubber injector, and the end of the latter tube was fitted with a suitable extremity for introducing into the nostril, stops being placed so that the odour should not escape until a desired moment. The compression of the injector drove a current of air from the interior of the bottle into the nostril. Another tube of the same length, communicating with the cavity of a tympanum and writing lever, serve to register the exact moment at which the wave of air reached the nostril, and an electrical signal was registered by pressing down a button at the moment when the sensation was perceived. A considerable time was necessary between different observations with the same substance, because otherwise the moment of sensation could not be accurately determined. The interval which elapsed was as follows with the several substances enumerated:—Ammonia, ·37 sec.; acetic acid, ·46 sec.; camphor, ·50 sec.; assafœtida, ·52 sec.; sulphide of ammonium, ·54 sec.; chloroform, ·56 sec.; sulphide of carbon, ·59 sec.; valerian, ·60 sec.; mint, ·63 sec.; carbolic acid, ·67 sec. Doubtless the different substances have a different mode of action on the olfactory nerve, and thus the variations are explicable.

UNQUALIFIED ASSISTANTS.

WE are not sorry to find that the subject of practice by unqualified assistants is beginning to engage the attention of the lay press, and that it is (as must needs be the case) calling forth the expression of indignant remonstrance which is due to the system. Under such headings as "The Physicking of the Poor," our lay contemporaries are rightly denouncing a mode of practice which places the victims of poverty at the mercy of ignorant dabblers in medicine, who, either from absolute want of proper training, or from such incompetency as has prevented their passing even the lowest medical examinations, are acting as unqualified assistants to qualified medical men. As an organ of public opinion puts it, "there are many dozens of men acting as visiting medical assistants at the present moment who have been enlisted from behind the counters of druggists' shops—men who have never seen the inside of a hospital or medical school, and whose only claims to medical knowledge have been gained through a wanton access to the pharmaceutical artillery bottles of their employers." It is needless to say more than that this is unhappily and, as we think, discreditably, true. We have already pointed out that the difficulty may be got over by employing young physicians and surgeons *after* they have passed, instead of letting them loose without "experience" on the general public. Mere school and hospital work is not a sufficient preparation for general practice. This is abundantly evident. Let the possessors of wet ink diplomas be condemned to do a little *real* work in practice under the guidance of experienced men. If our younger brethren will take the reasonable course indicated, the Gordian knot of practice by "unqualified assistants" will be cut. We fear it will never be untied.

IS IT MANSLAUGHTER TO STARVE TO DEATH?

THE answer to this portentous question must, we presume, be, Not when the act is performed *secundum legem*, in the carrying out of the Order which makes the "workhouse test" a legitimate means of keeping down the rates by repressing pauperism—an euphemism for oppressing paupers. Another case of "starvation" under the ægis of the Poor-law system has occurred, this time at Fulham. "A juror asked if there ought not to be some means of giving the poor relief without 'badgering' them to go into the house?" The verdict returned by the coroner's jury was, "Death from want of food." There is, unhappily, no room to question the strict justice of this finding. The man who died was forty-seven years of age, and undoubtedly perished from want. He was struggling to win bread for himself and his wife up to Feb. 17th by odd jobs, such as window-cleaning. He died on Feb. 22nd. It was, in a Poor-law sense, irregular to die so soon; our approved system expects paupers to hold out a little longer. We are so afraid of encouraging dependence that we refuse relief except on terms which involve the breaking up of the last vestige of home, and the rending of the last connecting link with independence. The system is illogical in theory, ruinous in practice, and cruel in its effects, yet men of heart and brains are found to defend it. Alas, that it should be so!

WOUNDS OF THE HEART.

THE surgery of the present day is undoubtedly aggressive. The intra-thoracic organs had been long beyond the pale even of minor operations, but excision of the lung has recently been proposed on experimental grounds as an operation practicable, at least in certain cases; and now the principle has been maintained by Block, on the same grounds, that wounds of the heart should receive surgical treatment, similar to that which would be given to a wound of an external part. He recently pointed out, to the German Surgical Society, that death from wounds of the heart is usually due to asphyxia from effusion of blood into the pericardium, or to the loss of blood, or to damage to the motor ganglia of the heart, or to obliteration of the coronary artery. Hesitation in opening the thoracic cavity leads the surgeon at present to allow the patient to die when he might be saved from death by asphyxia by a simple incision into the pericardium, and from death by hæmorrhage by an equally simple suture. He has endeavoured to show by experiments on dogs and rabbits, that the suture of wounds of the heart is a relatively inoffensive operation, which can be successfully carried out in the space of three or four minutes. In four animals the two pleural cavities and the pericardium were opened for a short time, and all survived—a proof that such interference can actually be borne by animals. The opening of the right and left ventricles and the compression of the entire heart necessary to close the wounds was also borne for some time. A laceration of the cardiac muscle, the opening

of the three thoracic cavities, and a suture of the lung to close the openings into the pleura, were also borne by a dog, which, in a vigorous state of health, was presented to the Society. In order to hinder the escape of blood during the suture the apex of the heart was seized and pulled so strongly that the pulse and respiration ceased, so that it was possible to operate, the heart being completely at rest. Not a single animal died in consequence of this manipulation. A less degree of traction, insufficient to affect the pulse or respiration, suffices to close the wound, so that the hæmorrhage ceases. Three animals were shown which had undergone this treatment.

THE DEBATE ON DIABETES.

THE President of the Pathological Society announced on Tuesday last that the discussion on the Morbid Anatomy of Diabetes will be held on April 3rd, and continued, if necessary, on April 17th. The secretaries have drawn up a circular calling attention to the great want of accurate knowledge on this subject. They suggest that particular attention should be directed to the state of the blood—as to the occurrence of acetonæmia and fat embolism,—to the sympathetic system, the central ganglia, the lungs, liver, pancreas, and kidneys. It is not proposed to ask any member of the Society to open the debate formally, but it is hoped rather that all those who can afford information on this subject from personal experience or hospital records will collect facts and specimens, and that the discussion shall as far as possible take the form of actual demonstration of pathological phenomena. The subject is very important, and it is to be hoped that the discussion may be productive of valuable results.

THE "BOARDING-OUT" SYSTEM.

IT cannot be too strongly or too frequently impressed on the minds of those in authority—that is, the sort of authority which consists in administering with niggardly hand the State provision for the poor—that the "boarding-out" system is far better than the "workhouse" system, for the training of little paupers. Happily it has not yet come to be a maxim of Local Government policy that such "out-door relief" as consists in placing the children of pauper parents in private families to be reared, must be withheld lest it should prove too pleasant. Probably before long we shall arrive at the conclusion that anything else than workhouse boarding is too good for the offspring of parents who are guilty of the crime of being poor. This depth of folly and infamy has not, however, yet been reached, and until it is we may plead for the development of the boarding-out system to its amplest extent. It is the one sensible and humane policy to pursue, and we scarcely know whether most to marvel at the wrong-headedness which retards its adoption, or to admire the consistency which prompts those who regard the "workhouse test" as the panacea for all Poor-law grievances, to oppose the "boarding-out" system because it is a form of "out-door relief."

NEPHRECTOMY IN ITALY.

DR. SPADARO reports (*Gazzetta degli Ospitali*, Feb. 18th, 1883) that five operations for removal of the kidney have been performed in Italy: the first by Urbinati of Cesena, the second by Raffa of Rovigo, the third by Clementi of Catania, the fourth by Novaro of Turin, and the fifth by D'Antona of Naples, the three last being successful. Professor D'Antona's operation was performed Dec. 20th on a married lady, aged twenty-six, by a curvilinear incision in the left loin. Pus was found around the kidney, which was changed into a bag containing matter. The artery and vein were secured in one ligature, the ureter in another, while a third ligature on the proximal side of the others included all those structures. Perchloride of iron was applied to the stump, and iodoform sprinkled into the wound, which, on the suggestion of Professor Palasciano, was not sutured. According to the last report (twenty-fifth day after operation), the wound was granulating rapidly, and the patient progressing to complete recovery.

MEASLES IN THE NATIVES OF TIERRA DEL FUEGO.

TWO years ago we had occasion to notice the occurrence of a sad epidemic of hæmorrhagic small-pox among some Esquimaux in Paris (THE LANCET, 1881, vol. i., p. 303). The behaviour of acute specific diseases in individuals of races which have been little exposed to them is very seldom seen in Europe. A troupe of the wild inhabitants of the southernmost part of America landed in Europe in August, 1881, and, having made a tour of several towns in Germany, appeared at Zurich in the middle of February, 1882. Measles broke out soon after their arrival, and Dr. Seitz, under whose care the barbarians came, has narrated an account of his observations of their diseases and manners in Virchow's *Archiv* for January and February. The order in which the disease appeared in the members of the party was that of the order of their ages, beginning with the youngest. Remarkably enough, the older members succumbed after the measles, while the younger recovered. The troupe numbered nine individuals when in Zurich; only four reached Tierra del Fuego in safety, five having died at various intervals within a month after the onset of the measles. The chief changes found at the post-mortem examination were the signs of catarrhal pneumonia.

THE WATER-SUPPLY OF THE METROPOLIS.

COLONEL BOLTON, in his general remarks upon the quality of the water supplied by the metropolitan water companies during the month of January, 1883, says that owing to the flooded state of the Thames the water companies which were unprovided with sufficient storage reservoirs were compelled to take in dirty water and that the impurities in solution passed through the filter beds, causing the filtered water to be stained with a peaty-brown colour. Colonel Bolton suggests that the question of a practical "standard of quality" (including both the organic and inorganic matter contained in water) should be considered and determined by the highest authorities connected with the medical and chemical professions, and when such standard is adopted by the authorities, it will then become the duty of engineers connected with the water companies to work up to such standard, and the sources of supply of water to the metropolis could be thereby regulated.

BODY-SNATCHING IN AMERICA.

WE regret to learn that the horrible practice of body-snatching is carried on in some American cities. There was quite lately a painful discovery of this kind made in Philadelphia, and a criminal action was brought against the demonstrator of anatomy at one of the leading medical schools in that city. Now we learn that there is great excitement in Baltimore, owing to the discovery that vaults and graveyards all round that city are devastated, and the bodies of the recently buried carried off to the schools for dissection. There is of course only one method of stopping this revolting practice, which can commend itself to thoughtful persons, and that is to grant proper facilities for the supply of subjects for dissection. The experience of all the enlightened communities who have adopted this practice shows that it is quite efficient in abolishing altogether the crime of body-snatching.

DANGERS OF AERATED WATERS.

IT is our duty once more to direct our readers' attention to the danger of common aerated waters. The aeration has of course no effect on the quality of the water, and as the consumer cannot judge for himself in the matter, he is exposed to most serious risk if, as sometimes happens, bad water has been used in the manufacture. There is comparatively little danger with aerated waters made in large towns, because as a rule the town water-supply will be used, and the town water-supply is seldom very bad. But in country places supplied by streams or shallow wells there is constant risk that the maker may have chosen the most convenient source without regard to its quality. If the only available water-supply is doubtful in quality, it should be carefully purified before aeration, either by distillation or at least by prolonged boiling and filtration.

THE ERICHSEN TESTIMONIAL.

WE have been requested to state that ladies are invited to attend the public meeting which is to be held at University College to-day (Saturday), at 2.30 P.M., for the presentation of Mr. Erichsen's bust.

FAMINE FEVER IN IRELAND.

AT a meeting of the Swineford Local Board on Tuesday last it was stated that an amount of distress prevails in the district which has had no parallel since 1847. It was reported that more than thirty persons are now in the Union Workhouse suffering from "famine fever," and that 700 persons are on the relief list. The natural and creditable repugnance to go into the workhouse is said to be causing fatal distress outside. It may be hoped that under such exceptional circumstances the "house test" is not being too rigidly applied. Swineford is a small town in the county of Mayo, having (according to the census report) an estimated area of sixty acres, and an enumerated population in 1881 of 1657 persons. Making due allowance for the political temptation to spread sensational reports of distress in Ireland, this definite report of the outbreak of famine fever appears to call for investigation.

NEPHRECTOMY.

THIS rare operation was performed at the Queen's Hospital, Birmingham, on March 3rd, by Mr. West, and the case was reported on the 7th to be doing well. The patient on whom the operation was performed was a boy aged fifteen, who on last Guy Fawkes day sustained a traumatic rupture of the left kidney. Suppuration ensued, and for this aspiration and then free incision were employed; but as the boy was discharging about eighty ounces of putrid ammoniacal urine mixed with pus through the loin, and as he was getting into a hectic condition, Mr. West decided to remove the kidney. The kidney was of great size, and was full of suppurating cysts.

"MEDICAL CERTIFICATES."

THERE is just now, it seems, need to draw attention to the subject of "medical certificates." These documents are, it is alleged, given too freely and without sufficient grounds. The question is a difficult one, because in respect to many maladies at least, the practitioner must always be at the mercy of his patient for the "grounds" of an opinion. A considerable proportion of the worst affections are characterised by symptoms which are mainly subjective. A man says he has a bad pain. No medical man can be sure of the fact alleged. He must take the patient's word for it. This difficulty is a great one. We can only urge that every possible precaution should be taken, and especial care exercised before an opinion is expressed, much more before any expression of opinion is committed to writing, to be used as the patient may please.

DEATH IN THE DRAINS.

WE direct attention to a letter in another part of our issue to-day, showing the frightful condition of the drains of some houses and the terrible consequences which ensue. In this instance a whole family was affected with blood-poisoning, and no less than three children died of diphtheria. The evident tendency to a reappearance of diphtheria gives a more serious importance still to such a fatality as is very properly put on record. We entirely agree with Mr. Kesteven that a medical man would do well in any similar case to refuse a certificate and demand an investigation by the coroner. Medical science is mocked by such poison factories as are created by unprincipled workmen and their equally unprincipled employers, who will not do better till they are exposed and punished.

THE CORONERSHIP OF CENTRAL MIDDLESEX.

SINCE Dr. Danford Thomas was elected coroner in May, 1881, he has unaided performed the duties of the office; but we now understand that he has nominated and appointed Dr. Wynn Westcott to act as his deputy. The testimonials &c. submitted to the Lord Chancellor as evidence of the fitness of Dr. Westcott for the office were of the highest order, and his lordship has signified his approval of the appointment. Dr. Westcott was educated at University College and Hospital; he is a Bachelor of Medicine of the University of London; and a Member of the Royal College of Surgeons. For some years he practised in the West of England, but, since his residence in London, he has devoted special attention to medico-legal questions.

THE RECENT VACCINATION PROSECUTION.

AT a meeting on the 6th inst. of the Council of the Poor-law Medical Officers' Association the following resolution was passed:—

"That this Council begs to express its sincere sympathy with Dr. Dunlop, the medical officer of St. Pancras Workhouse, in the unmerited persecution to which he has been exposed in the recent prosecution for manslaughter; and that this Council further expresses its satisfaction that the St. Pancras Board of Guardians should have so readily undertaken his defence, whereby Dr. Dunlop was saved from a severe pecuniary liability. The Council also desire to thank their chairman, Dr. Joseph Rogers, for the public-spirited manner in which he aided Dr. Dunlop in his defence."

ALKALOIDS IN HUMAN SALIVA.

DURING recent years the influence of saliva in the domain of experimental pathology has been one of considerable prominence. We need only refer to the researches of Pasteur and other French observers to confirm the truth of this. In 1881 Gautier believed he had discovered some chemical bodies resembling alkaloids in the healthy human saliva. These bodies, when injected into the tissues of animal organisms, produce effects, best seen in birds, like those caused by the venom of serpents. Odo Bujwid has attempted to verify and extend the observations of Gautier, but without success. He does not directly dispute the presence of the alkaloids, but inoculations performed on pigeons, moles, and frogs have been productive of singularly negative results.

ELECTRIC LIGHT IN HOSPITALS.

THE *Neue Freie Presse* recently called attention to the experimental application of electric light to the illumination of the General Infirmary at Vienna. Two large wards containing respectively twenty-six and eighteen beds, an operating-room, and the medical instruction room of the institution were lit by the new method. Swan's system was employed, the operating-room being lit with four fixed lights and the wards having each a fixed light, as well as a portable lamp to be used for purposes where the close proximity of light is required. The journal in question remarks that the accumulator system in use obviated the necessity of the dynamic machinery working at night, but that this method is too expensive for general adoption.

THE *Cape Argus* of February 12th contains an article entitled "Lessons not Learnt," in which it is stated that the office of vaccine officer is, owing to the apathy of parents, again becoming a sinecure. Our contemporary says that it is not as though there were no machinery for bringing home to parents their duty in this matter, since messengers systematically visit the houses where children have been born in order to induce the parents to perform their duty, and that nothing short of a Compulsory Vaccination Act, with premiums to medical men for highest aggregates of successful vaccination, will suffice for the treatment of this question.

A DISEASE of a peculiar nature is reported to have broken out in the neighbourhood of Snake's Valley, New South Wales. Persons attacked with the malady appear to exhibit symptoms of a tetanoid character, accompanied with wild delirium, in which there is a tendency to bite anyone standing by. The paroxysms are often followed by a prolonged season of insensibility. The suggestion has been thrown out that the disease is induced by the eating of the imperfectly cooked flesh of sheep infested with parasites. More information of the affection is to be desired.

WE have received a copy of the rules for the preservation of health issued by the London and Provincial Sanitary Company, Limited, 22, Whitehall Place. They are accompanied by an almanac for the current year, an arrangement which will probably ensure their preservation and the possession of a conspicuous place on the wall, until at least the close of 1883. The rules are simple, and if obeyed would tend to remove many of the nuisances now so mischievously rife.

THE recent decision of the United States Commissioner with regard to the legality of the indiscriminate sale of diplomas and degrees by the "Bellevue Medical College," appears to have given an impetus to the creation of diploma-mills in Massachusetts. An American contemporary announces the establishment of three of these bogus-degree manufactories, and thinks it is time the profession of Maryland were taking some measures against the spread of the infection amongst themselves.

AN inquest was held on the 3rd inst. at Guy's Hospital on the body of a man who recently died in that institution from wool-sorters' disease. The medical superintendent of the hospital informed the coroner that there had been treated recently at Guy's no fewer than twenty cases of this disease, none of which, however, had proved fatal except the one under consideration. A case of the kind was introduced to the notice of the Pathological Society at its last meeting (see p. 410).

PROVIDENT medical institutions are springing up like mushrooms in all parts of the country. One has just been opened in Bristol; another is in process of formation in Olney; and yet another at Halstead. Providence is a good thing, and worthy of all encouragement in the industrial classes; but it must be confessed that provident dispensaries are not always established on strict lines of justice to those who provide the medical skill and tendance which form the staple of such institutions.

WITHIN the past few days the deaths of four members of the profession have been recorded at the following ages—viz., Surgeon John Wyer, late 19th Regiment, retired, ninety-four; Dr. John Wilkinson, surgeon to the County of Limerick Infirmary, ninety; Surgeon-Major James Reid, Madras Army, retired, eighty-six; and Dr. James Arnott, late superintending surgeon, Hon. East India Company's Service, St. Helena, eighty-eight.

A LOVER of peace should be careful to avoid Jena University as a place of study. No less than twenty-one serious duels among the students are said to have come off in one day. To enhance the horrors and risks of this barbarous practice, it appears that, for want of care in the cleansing of the weapons employed, blood-poisoning in many cases followed the infliction of wounds, so that some forty young men are lying in hospital in a precarious condition.

AT the last meeting of Congregation of the University of Cambridge the following gentlemen were appointed members of the Board of Electors to the Professorship of Zoology and Comparative Anatomy: Professor Flower; Mr. H. N. Moseley, Linacre Professor, Oxford; Dr. Michael Foster, Trinity; Professor Huxley; Mr. J. W. Clark, Trinity; Mr. F. Darwin, Trinity; Professor Humphry; Mr. D. M'Alister, St. John's.

ALMOST an epidemic of rabies appears to have recently prevailed in County Cork, and numerous deaths from hydrophobia have been recorded. Last week a boy from Macroom, aged six, who had been bitten by a mad dog some time since, was admitted into one of the Cork hospitals, death resulting shortly after admission; and another case of a similar nature has just occurred near the city.

SURGEON-MAJOR HAMILTON met with a severe accident last Saturday, having been thrown out of a vehicle which he was driving along a road close to Dublin. He was lifted up badly hurt, and on examination it was found that he had received a dislocation of the shoulder, besides some minor injuries. The dislocation was easily reduced, and he is progressing favourably.

A PLOT of land in the Wynberg district, 620 acres in extent, has been purchased by the Government at the Cape, as the site for the erection of a general lunatic asylum.

MANCHESTER CLINICAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN.—The annual meeting of this institution was held on the 27th ult. It appeared from the report that the pecuniary deficit at the end of 1880 was £646 0*s.* 7*d.*, which in 1881 was increased to £676 6*s.* 10*d.*, whilst at the end of 1882 the amount of the deficiency was no less than £1113 15*s.* 2*d.* If this liability is not speedily diminished, the committee report that they will be compelled to consider the question of not using the whole of the beds in the hospital. Since the opening of the "Whitehead Ward" a large number of women have come under treatment, and it has been considered desirable to change the title of the institution to "The Clinical Hospital for Women and Children."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Okehampton (Rural).—The death-rate for this rural district is reported by Dr. Linnington Ash to have been 14·7 per 1000 for the year ending December last; and the district is alleged to have been singularly free from epidemic disease. In one instance where enteric fever broke out in a lodging-house, to which lodgers had been admitted without any warning as to the pre-existence of the disease there, the owners were prosecuted and fined. Excrement and refuse nuisances are still very prevalent in the district, partly owing to the want of properly constructed closets and ashpits, partly from the need of a properly organised system of inspection. At North Tawton measures have at last been taken to sever the direct communication between closet-pans and the water-mains; but other matters, to which attention was drawn by Dr. Blaxall, the Local Government Board Inspector, still remain under consideration. South Tawton has also been unfavourably reported on, as regards its water-supply, by Dr. Blaxall, Mr. Wynter Blyth, and Dr. Ash, but still no action is taken in the matter. Indeed, the water-supply for many parts of this district is such as to call for remedial measures, and the delay which occurs on the part of the rural authority in fulfilling their sanitary functions in this respect is much to be deplored.

Wellington.—Dr. Meredith, the medical officer of health for this urban district, gives an interesting account, in his annual report, of a prevalence of enteric fever and of diphtheria in the town, entering with much detail into the structural defects of drains which were found associated with the diseases. The advice given as to the necessary remedial measures is founded on sound principles. As regards means of house-drainage, he specially advocates the necessity of securing through ventilation by means of a continuous current of fresh air. We have, however, considerable doubts as to whether this result can be efficiently secured in the cases in which one of the two necessary openings in the drain is left unprovided, and in which an attempt is made to attain the same end by the division of a single ventilating shaft into two flues by means of a partition. If one or other of the plans to which we referred in an article in our issue of the 10th ult. were adopted, we think that no house would be found to which the principle of requiring at least two drain-openings for the purposes of ventilation would not apply. The Local Board of Health is about to consider the model bye-laws, and this point should not escape their attention. The death-rate for Wellington was only 14 per 1000 last year, and the measures advocated by Dr. Meredith are precisely those which are calculated to maintain so satisfactory a mortality.

Greenock (Urban).—The medical officer of health for Greenock, in his monthly report for the five weeks ending Feb. 3rd, shows that the death-rate was equal to 28·1 per 1000, against 24·2, the mean rate in the corresponding periods of the three years 1880–1–2. This excess was mainly due to the exceptional fatality of diseases of the respiratory organs, which caused 21·1 per cent. of the deaths from all causes, in addition to 8·7 per cent. which resulted from phthisis. The deaths referred to the principal zymotic diseases were not above the average, and their proportion to the total deaths did not exceed 12·3 per cent.; this percentage is, however, unduly depressed by the excess of deaths from other causes, and we would suggest to Dr. Wallace to substitute in future reports the death-rate to population for the percentage to total deaths, as being much more trustworthy for comparative purposes. Whooping-cough was the most fatal zymotic disease in Greenock during January, but the medical officer of health reports a distinct outbreak of typhus, due in great measure to the fact that the first cases were certified by the attending medical practitioner as "influenza fever," and thus escaped "notification" and proper sanitary supervision. It is satisfactory to be able to note that the death-rate in Greenock during last year did not exceed 22·7 per 1000 of its population, estimated at 70,128 persons. The zymotic death-rate was, however, equal to 3·3 per 1000, which is excessive, and mainly due to the fatality of diphtheria.

Malton (Urban and Rural).—Dr. William Young, the medical officer of health for these two sanitary districts, has recently issued his annual reports for 1882. In the urban district which, according to the preliminary census report, had a population of 8750 persons in 1881, the births last year were 257, including 28, or nearly 11 per cent., which were illegitimate, equal to a rate of 28·7 per 1000. The deaths recorded during the year were 162, and the death-rate did not exceed 18·1 per 1000. This rate is undoubtedly low, and would, unquestionably, have been lower but for exceptional zymotic fatality, which included 27 deaths from whooping-cough, 6 from scarlet fever, and 2 from diphtheria. The death-rate from whooping-cough was remarkably high, but the report gives no details of this exceptional epidemic. Dr. Young refers to the prevalence of scarlet fever, of "so mild a character that a large proportion of the cases have not been attended by any medical man"; it is very properly pointed out that such cases often result "in serious lesion or death, as well as assist in causing a continuity of cases." With regard to the rural district, the medical officer reports a birth-rate of 27·0, and a death-rate of but 13·4; with regard to the death-rate Dr. Young remarks that it is the lowest that has ever occurred in the history of the district. The zymotic death-rate is reported to have been so low as 0·60 per 1000, although both scarlet fever and enteric fever showed some prevalence. Special reference is made to the prevalence of "gastric fever," an indefinite term which is better avoided; we presume enteric or typhoid fever is intended. Uniformity of terms is most desirable in health reports. With reference to the prevalence of this disease we note that Dr. Young "examined some nine samples of water from various villages in the Malton Rural Sanitary District; two of these were found of good quality, seven were impure and unfit for drinking." It is added that the causes of these impurities were removed, but it is not stated whether such removal is likely to be permanent.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 6189 births and 3801 deaths were registered during the week ending the 3rd inst. The annual death-rate in these towns, which had been equal to 21·9 and 22·7 per 1000 in the two preceding weeks, further rose last week to 23·0. During the first nine weeks of the current quarter the death-rate in these towns averaged, however, only 22·8 per 1000, against 26·9, 24·8, and 25·2 in the corresponding periods of the three years 1880–1–2. The lowest rates in these towns last week were 17·6 in Birkenhead, 18·9 in Derby, 19·0 in Portsmouth, and 19·1 in Huddersfield. The rates in the other towns ranged upwards to 30·1 in Liverpool, 31·7 in Blackburn, and 33·0 in Cardiff. The deaths referred to the principal zymotic diseases in these twenty-eight towns, which had been 341 and 345 in the two previous weeks, declined to 334 last week, and were fewer than in any previous week on record; 100 resulted from whooping-cough, 69 from scarlet fever, 64 from "fever" (principally enteric), 41 from diarrhœa, 27 from measles, 22 from diphtheria, and 11 from small-pox. No deaths were referred to any of these zymotic diseases last week either in Derby or Bolton, whereas they again caused the highest death-rates in Hull and Blackburn. The 22 deaths from diphtheria in the twenty-eight towns included 13 in London, and 2 each in Portsmouth, Liverpool, and Sunderland. Small-pox caused 7 deaths in London, 3 in Newcastle-upon-Tyne, and 1 in Birmingham. The number of small-pox patients in the metropolitan asylum hospitals, which had been 95 and 88 on the two preceding Saturdays, were 89 at the end of last week; 16 new cases of small-pox were admitted to these hospitals during last week, against 15 and 11 in the two previous weeks. The deaths referred to the diseases of the respiratory organs in London, which had been 401 and 366 in the two preceding weeks, were 88 last week, and 130 below the corrected weekly average. The causes of 108, or 2·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Plymouth, Birkenhead, and Cardiff. The proportions of uncertified deaths were largest in Norwich, Oldham, Halifax, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 25·8 and 27·4 per 1000 in the two preceding weeks, declined to 25·1 in the week ending the inst.; this rate, however, exceeded by 2·1 the mean rate in the twenty-eight English towns. The rates in the eight towns ranged from 18·4 in Leith to 27·4 in Dundee and 28·9 in Glasgow. The deaths in the eight towns included 104 which were referred to the principal zymotic diseases; these deaths were equal to an annual rate of 4·4 per 1000, which was again more than double the mean rate from the same diseases in the large English towns. Whooping-cough was the most fatal zymotic disease in the Scotch towns, causing 45 deaths, or 11 fewer than those in the previous week; they included, however, 19 in Glasgow and 13 in Dundee. The 12 deaths referred to diphtheria in the eight towns also showed a decline from recent weekly numbers, and included 6 in Glasgow and 2 both in Aberdeen and Greenock. Ten of the 12 deaths from scarlet fever, and 9 of the 10 from measles, were returned in Glasgow. Of the 10 deaths referred to "fever," 3 occurred in Glasgow, 2 in Edinburgh, and 2 in Dundee. The deaths attributed to diarrhœa somewhat exceeded the number in the corresponding week of last year. The deaths referred to acute diseases of the lungs in the eight towns numbered 151 last week. The causes of 103, or nearly 17 per cent., of the deaths registered in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 39·1 and 35·7 per 1000 in the two preceding weeks, further declined to 34·8 in the week ending the 3rd inst. During the first nine weeks of the current quarter, the death-rate in the city averaged, however, no less than 33·7 per 1000, against 20·9 in London and 21·5 in Edinburgh. The 233 deaths in Dublin last week showed a further decline of 6 from the high numbers in recent weeks; they included 11 which were referred to "fever," 9 to whooping-cough, 5 to diarrhœa, and not one either to small-pox, measles, scarlet fever, or diphtheria. Thus 25 deaths were recorded from these principal zymotic diseases, against 31 and 23 in the two previous weeks; they were equal to an annual rate of 3·7 per 1000, against 1·8 from the same diseases both in London and Edinburgh. The deaths referred to "fever," which had been 14, 11, and 12 in the three previous weeks, were 11 last week, and equal to a rate very far exceeding that which prevailed from the same cause either in London or in Edinburgh. The 9 fatal cases of whooping-cough corresponded with the number in the previous week, while the 5 deaths attributed to diarrhœa showed an increase upon the numbers in recent weeks. The causes of 30, or nearly 13 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

According to the table for distribution of gratuity on termination of operations in Egypt, recently issued by the Admiralty and the War Office, the medical department will receive—Surgeon-General (Major-General), £152; Deputy Surgeon-General (Colonel), £34; Brigade-Surgeon (Lieutenant-Colonel), £34; Surgeon-Major, after twenty years' service (Lieutenant-Colonel), £34; Surgeon-Major (Major), £32; Surgeon (Captain), £24.

ARMY MEDICAL DEPARTMENT.—Surgeon-General John Sheldon Furlong, M.D., has been granted retired pay. Surgeon-Majors James Mackay, M.D., and Lancelot A. White have been granted retired pay, with the honorary rank of Brigade Surgeon.

ARTILLERY VOLUNTEERS.—1st Banff: William Fergusson, Gent., M.D., to be Surgeon.

RIFLE VOLUNTEERS.—1st Herefordshire: John William Hinings, Gent., to be Acting Surgeon.—1st Isle of Wight: Acting Surgeon John George Sinclair Coghill resigns his appointment.

ADMIRALTY.—The following notification is substituted for that which appeared in the *London Gazette* of Feb. 23rd:—Fleet Surgeon Doyle Money Shaw, C.B., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of 16th inst.

The following qualified candidates for the Naval Medical Service have been appointed to be Surgeons in Her Majesty's Fleet, with seniority of Feb. 26th last:—Bowen Stilon Mends; Timothy Joseph Crowley, M.D.; Arthur Keess; David Lennox, M.B.; Bassett Charles Edward Fitzgerald Gunn; Donald Templeton Hoskyn; John Evans Penn; Robert Howard Nicholson; Percy Bellamy Bury, M.B.; John Nicholson Seymour, M.B.; John Leslie Barrington; Jeremiah Sugrue, M.D.

The following appointments have been made:—Fleet Surgeon Ingham Hanbury, C.B., to the *Crocodile*, vice M'Morris; Staff Surgeon Matthew F. Ryan, to the *Fantome*, recommissioned.

WILLS AND BEQUESTS.

THE will, with a codicil, of Sir Thomas Watson, M.D., LL.D., late of 16, Henrietta-street, Cavendish-square, and of Reigate Lodge, Reigate, who died on December 11th last, was proved on the 15th ult. by Miss Margaret Catherine Watson, the daughter, and Sir Arthur Townley Watson, the son, the executors, the value of the personal estate amounting to upwards of £164,000. In addition to leaving her his furniture and effects (excepting some pictures, books, and other articles specifically bequeathed to his son, his daughter-in-law, and to his friend Dr. George Johnson), the testator gives to his daughter certain stocks, amounting to over £26,000, and an annuity of £600; to each domestic servant who has been three years with him at his death one year's wages; and to William Dartnell and Elizabeth Robbins, in addition, annuities of 50 guineas each. All his real estate and the residue of the personalty he leaves to his son.

The will of Mr. Charles Mackinnon, formerly of 23, Westbourne-park, but late of Millbrook, in the county of Southampton, a retired Inspector-General of Hospitals in Her Majesty's Indian Army, who died on Jan. 9th last, was proved on Jan. 23rd by Mr. Charles Mackinnon, Surgeon, Army Medical Department, the son, and General Sir Orfeur Cavenagh, K.C.S.I., the executors, the value of the personal estate amounting to over £28,000. The testator makes specific bequests to each of his four sons, and gives pecuniary legacies to his eldest son Charles, Sir Orfeur Cavenagh, and two of his sons, to a niece of his late wife, and to his cook. The residue of his property is to be divided between his three younger sons Walter Carr, Henry William Alexander, and Matthie Charles.

The will of Mr. Nicholas Henry Stevens, Surgeon, of 14, Finsbury-circus, and of Norfolk-crescent, Hyde-park, who died on December 20th last, was proved on the 8th ult. by Mrs. Edith Stevens, the widow, and Mr. William Henry Whitfield, two of the executors, the value of the personal estate exceeding £25,000. Subject to a legacy of nineteen guineas to his servant Charles Humas, the whole of the provisions of the will are in favour of testator's wife and children.

The will and codicil of James Christie, M.D., of Cape Town, were proved in London on Jan. 24th by Mr. Robert Stewart. The testator leaves for the benefit of his brother Robert an annuity of £20, and to each of his ten children £500. The remaining provisions of the will are in favour of his wife and children, excepting his daughter Jean Dalgetty, who is provided for by a separate deed.

The will and codicil of Charles Rhodes, M.D., late of Weymouth, Dorset, who died on Oct. 17th last, were proved on Jan. 24th by Mr. George Onslow Churchill, the Rev. John Stephenson, Canon of Salisbury, and Mr. Robert Oakley, the executors, the personal estate being sworn under £9000. The testator gives £200 to Jane Harper Laird, in recognition of her faithful services; £10 to his servant George Judd; and the residue of his real and personal estate to all his children in equal shares.

ROYAL SURREY COUNTY HOSPITAL.—The annual general court of the governors of this institution was held on the 3rd inst. The receipts for the past year were £3445 16*s.* 8*d.* and the balance at the bankers on Dec. 31st, 1882, was £165 18*s.* 2*d.* to the credit of the hospital, instead of a balance of £156 19*s.* 5*d.* to the debit of the hospital, as in 1881.

Correspondence.

"Audi alteram partem."

"THE THERAPEUTICS AND THE PATHOLOGY OF RHEUMATIC ENDOCARDITIS."

To the Editor of THE LANCET.

SIR,—Permit me to offer a few remarks in answer to Dr. Maclagan's communication to THE LANCET of Feb. 24th.

My own conclusions are, for the most part, in accord with Dr. Maclagan's as to the treatment of the various manifestations of the rheumatic process, although not so as regards the pathology of the form of endocarditis which is in association with rheumatism.

I have examined and tested the extant evidence, and have concluded that the pain and pyrexia of rheumatism are reduced by the salicylic treatment in so marked a manner that I would always employ it in any manifestation of acute rheumatism. The preference which Dr. Maclagan gives to salicin over the salicylates will induce me to give this careful trial; it is quite probable that salicin, a bitter tonic, may dispose to a more speedy convalescence than salicylate of soda, a possibly depressing saline. It must not be forgotten, however, that Dr. Isambard Owen has advanced important evidence, derived from the experience of St. George's Hospital, to the effect that the best results are obtained when the salicylates are administered in combination with alkalies; the latter in doses sufficient to render the urine alkaline. It is quite probable, nevertheless, that salicin in combination with alkalies may give better results than the salicylates in such combination.

Again, I am in accord with Dr. Maclagan when he advises the *early* administration of the drug in any rheumatic manifestation—that is, immediately upon the case coming under observation. Whether the dose recommended by Dr. Maclagan—twenty, thirty, or even forty grains every hour for six hours, or until pain is relieved—errs on the side of excess, can only be proved by experience as to toxic effects. The advice, "frappez fort et frappez vite," is sound, provided the blow be not *too* heavy. Dr. Isambard Owen, however, says that the advantage is least marked when the salicylate is given in *large* initial doses without alkali, and more marked for the salicylate in *moderate* initial doses. I quite think that the salicin treatment should be put in force as early as possible, and that the doses should be sufficient, for there is a *primâ facie* probability, as I have said, that the agent which reduces the pyrexia of rheumatism will also reduce the inflammatory process which is its concomitant, wherever that process may be manifested. Dr. Maclagan says, "It is by no means certain that we may not in some cases, by the early and free administration of the salicyl compounds, prevent the inflammation and consequent thickening of the valve" in rheumatic endocarditis. "If we see a case early, and give these compounds fairly, we may prevent the heart from suffering, as we undoubtedly do prevent joints from suffering." This is both possible and probable. My object in my Lettsomian Lectures was to enunciate the lessons told by hard facts. These were, I considered, to the effect that the salicin compounds *as at present employed*, valuable as they were in reducing the sum total of fever and suffering, had in no appreciable degree lessened the liability to heart complications. It may well be, however, that with an extended experience, a more prompt and more efficient application of the remedies, a more encouraging lesson may be taught by future statistics, and that rheumatic endocarditis may be possible of prevention if only we are enabled to observe the case sufficiently early. But there is the rub.

On the question of the pathology of rheumatic endocarditis I am afraid that I am considerably at variance with Dr. Maclagan. Dr. Maclagan says of the endocardium, "When it is affected in acute rheumatism, there is no general inflammation of its surface, such as is found in the pericardium and synovial membranes. The mischief is limited to a small portion of one surface of the affected valves." This view, although very generally accepted, is by no means in accord with my observations. One of the chief purposes of my first Lettsomian Lecture was to show—by a reasoning that was necessarily condensed—that the endocarditis of acute rheumatism is much more widely spread than appears by a naked-eye inspection. The bead-like elevations on the surface or borders of the valves, or on the endocardium, are but the concomitants of an extensively diffused inflammation. The whole tissue of the valves is swollen; it is seen under the microscope to have lost its normal fibrous appearance and to be infiltrated with cellular elements; these are scattered throughout the whole thickness of the valve, though they are sometimes aggregated at the free surfaces or borders, where friction may intensify the inflammatory change. The inflammation, moreover, is not confined to the endocardium; the exudation spreads to and infiltrates the muscular structures to which the valves and the tendinous cords are attached, and even the root of the aorta, as preparations made by my colleague, Dr. F. Charlewood Turner, demonstrate.

I cannot, therefore, accept the friction theory as accounting for rheumatic endocarditis, though friction may well be a cause determining the aggregation of cellular elements at certain spots of the endocardium, the formation of beads and the deposit on the devitalized surfaces of the little caps of fibrin with which we are familiar.

The evidence seems to me to point strongly to the conclusions that the endocardium is attacked in rheumatism at a very early period of the disease, that the advent of endocarditis may be extremely insidious, and that, though we may hope much from the administration of the salicyl compounds commenced very early, the probabilities of successful treatment reside chiefly in the employment of preventive measures. I am, Sir, yours faithfully,

Harley-street, W., Feb. 27th, 1883. A. ERNEST SANSOM.

DRAINS AND DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—During the last fortnight I have had the misfortune to lose three patients in one family from diphtheritic croup. The whole of the family, six children, father, mother, and servant, were all attacked with symptoms of blood-poisoning, though it only assumed diphtheritic appearance in the three children who died. My object in writing to you is not simply to record this fact, but to call attention to its cause. As soon as I saw reason to suspect blood-poisoning I suggested an examination of the drains. The house being one of a row, the drains passed directly under it from back to front, in order to reach the sewer. Directly under the house it was found that the pipes composing this drain had dropped apart, that they had never been properly cemented, or firmly connected to each other, but that they had been stuck together with clay, and the result was three dead children. This is no solitary instance of what it is no abuse of language to call villany, if not downright criminality, on the part of those who are responsible. Repeatedly has it occurred to me to meet with obstructed or broken-down drains caused by bad work; and this is my point—who is responsible? The workman, no doubt, is guilty of scamping the work; but what can be expected of such men as these? Still, be the workmen bad as they may, there is no reason why this wholesale manslaughter should go on. The real responsibility rests upon the employers of the labour, the master builders. If they were honestly to look after the work which they have contracted to do it could not be thus scamped. Then, again, how comes it that the parochial surveyors have not detected this blot? Can it be, as is freely asserted, that they are "squared by the builders," and overlook the work with their eyes blindfolded? Whatever the reason, there is a blot somewhere. Of all subjects that have been thoroughly threshed out, that of the sanitary arrangements of dwelling-houses is the one. The laws of health in this direction have been formulated, and are within the reach of all, and so are the best methods of carrying out these laws. Nevertheless, the fact stares us in the face that disease springs up unchecked in our midst because we are at the mercy either of the workman, the master, or the official surveyor, whichever it is who chooses to neglect his duty. It seems to me that the only way of meeting these evils is to make some of the guilty ones smart. Suppose a medical man refused to give a certificate in some such case, and referred the matter to the coroner, can it be doubted for a moment that if inquiry laid bare the fact that the death was due to blood-poisoning, and the blood-poisoning was due to bad work in the construction of the drains, can it be doubted, I say, that the jury would call it manslaughter on the part of those

responsible for that work, whether it was workman, master, or surveyor? When a few unfaithful workmen and masters have been brought to book, we may perhaps have some improvement, but not till then.

I am, Sir, yours, &c.,

Holloway-road, Feb. 26th, 1883. W. HENRY KESTEVEN.

SANITARY CONDITION OF CALCUTTA.

To the Editor of THE LANCET.

SIR,—The enclosed letter was written, at the request of Dr. Mouat, on the state of the sewers and drains at Calcutta, as detailed in THE LANCET of the 24th inst. If you wish to use the letter it is at your service.

I am, Sir, yours truly,

R. RAWLINSON.

"DEAR DR. MOUAT,—I have looked over the remarks in the *Overland Mail* (Calcutta) of January 9th, 1883, as to the condition of the main sewers and drains in that city. It appears that certain outlet sewers are large, and that tributary sewers and drains contain sediment, and are offensive. There are also statements that sewage sediment is allowed to accumulate both in the large main sewers and in the tributary sewers and house-drains, consequent on absence of flushing, disease in excess, especially cholera, being attributed to the stenches from the sewers and drains. The large main sewers connect with the tidal river. There are about thirty-four miles of tributary sewers, and it is said about fourteen million gallons of water per day pass out of the sewers. It is difficult to advise as to works in India other than on general principles. The following remarks and suggestions must therefore be taken for what they may be worth—namely, as the opinions of one who has had a wide experience, and who also has paid much attention to the subject. As a rule surface water in a tropical climate ought not to be carried away through sewers, as these should be proportioned to the volume of sewage. Natural watercourses may be improved, but should not be converted into sewers. Sewers formed in a flat district, and porous subsoil, should be of the best material; the bottom of the trench should be made watertight to prevent leakage of the fluids of sewage. The sewers and drains, in construction, should be absolutely true in line and in gradient, and should also be absolutely watertight, as, if not, the fluids will escape at the joints, leaving sediment to ferment and putrefy. All sewers and drains should be regularly flushed at short and regular intervals, as the ordinary flow of sewage is not, in all cases in flat sewers sufficient in volume to remove the sediment. Sewers and drains may be flushed each day, from an automatic flushing chamber, with a comparatively small volume of water, as under:—

Diameters of Sewers and Drains.

	Diameters.	Gallons for one flush.
Pipes	6 inches.	35
,, ...	9 ,,	80
,, ...	12 ,,	140
,, ...	18 ,,	320
,, ...	24 ,,	570

"The above volumes of water may be liberated through the drains and sewers in from three to five minutes. To remove old deposits the flushing should be repeated as fast as the flushing tanks can be filled until the drain or sewer has been cleared. If the drains and sewers leak into the subsoil, flushing may, in some cases, cause damage by washing away the sandy subsoil. I know of no remedy but repairs at such points with Portland cement. Sewers and drains in a flat district require unceasing attention in any climate, but under the climate of Calcutta unceasing special attention will always be necessary. Sewers and drains must have full means for ventilation that any gases of decomposing refuse may be dispersed and diluted in the open air. Stenches are offensive in the open air, but they do not kill as when admitted within inhabited houses. If sewer and drain flushing has been neglected in Calcutta, greater attention to this necessary process will tend to reduce the nuisance caused by the unflushed and foul drains and sewers.

"I am, Sir, yours truly,

"ROBERT RAWLINSON, C.B.,

"Chief Engineer Inspector, Local Government Board,

"Member of the Army Sanitary Commission.

"London, Feb. 12th, 1883."

ON PERSONAL PRECAUTIONS THAT MAY BE ADOPTED BY MEDICAL MEN WHILST ATTENDING CASES OF INFECTIOUS DISEASE.

To the Editor of THE LANCET.

SIR,—We have had in this district during the last year no less than five medical men and a nuisance inspector down with typhus fever, caught in the discharge of their dangerous duties. Of these, two medical men and the inspector succumbed to the disease. As I hold an appointment which brings me daily in contact with the more dangerous infectious diseases, I have given considerable attention to self-protection from fever poison, and I think the time has now arrived when medical men should take every precaution likely to prevent their becoming infected. I would suggest that the following precautions be taken when visiting every case of dangerous infectious disease:—

1. Always have the window open before entering the patient's room or ward. 2. Never stand between the patient and the fire, but always between him and the open window. 3. If possible change your coat before entering the room. 4. Do not go in for any unnecessary auscultation or other physical examination. 5. Stay as short a time as possible in the room. 6. Never, while in the room, swallow any saliva. 7. After leaving the sick room wash the hands with water containing an antiseptic. 8. Rinse out the mouth with diluted "toilet Sanitas" or Condy's fluid, also gargle the throat with it and bathe the eyes, mouth, and nostrils. 9. Expectorate and blow the nose immediately on leaving the sick room. 10. Keep up the general health by good food, exercise, and temperance. 11. In addition to the above recommendations, which are all pretty generally known, I would suggest another, which is, in my opinion, the most important of all. This is to filter all the air you breathe while in the sick room or ward through an antiseptic medium. My method is to use a McKenzie's inhaler over the nose and mouth. I carefully soak the sponge in a strong solution of carbolic acid before entering the sick room. It is so made that all the air breathed must necessarily come through this sponge, and the expired air is emitted, by a valve action, at another place. I have worn this not only in the Fever Hospital wards, but in many of the typhus dens in this borough. It is to this method that I attribute the fact that although I have attended between 200 and 300 cases of typhus during the last twelve months, and seen many more, I have hitherto escaped infection myself. The only objection (which is not of much importance in a hospital) is the unsightly appearance one has with the inhaler *in situ*. This objection is, however, a very slight one when weighed against the greatly increased safety one not only feels, but I believe actually possesses. I am not aware of this method having been mentioned previously, and this fact, and my desire to prevent a repetition of the late disastrous fatalities, must be my apology for bringing it before the profession.

I remain, Sir, yours truly,

CHARLES GREEN, M.B., M.R.C.S.,

Medical Officer of Health, Gateshead Borough, and Medical Officer of the Borough Fever Hospital.

March 1st, 1883.

FERTILITY OF WOMEN IN THE EAST-END OF LONDON.

To the Editor of THE LANCET.

SIR,—In connexion with Dr. Matthews Duncan's Lectures, now being published in THE LANCET, the following few particulars may be interesting:—

From 100 consecutive family histories, obtained from mothers leaving their children as patients in the East London Hospital, the following facts were elicited:—I found 100 mothers had borne 533 living children, had had 113 miscarriages, and of these children 176 had died. Of course, the numbers are too few for statistical purposes, and, moreover, the age of the mothers is not stated; but most of them were probably considerably past the middle of the child-bearing period. As far as these figures go, they seem to indicate that Ansell's and Farr's averages are too low and the average of the Statistical Society too high as applied to the East-end. Of these 100 mothers, eight had 10 or more children. One mother (child admitted with hysteria) had 15 children, 1 miscarriage, and 8 had died. Another (child phthisical) had 14 children, 4 miscarriages, and 4 had died.

One mother (child also phthisical) had 14 children, 4 miscarriages, and 8 had died. She had brought forth triplets once and twins twice. Another mother had borne 10 living children, including twins three times. Five of the twins died within a week of birth and one lived six months. Out of these 100 I also found as follows:—

		Children.	Miscarr.	Deaths.
10 mothers bringing syphilitic children	These had	40	20	12
5 mothers bringing phthisical children	,,	42	8	18
5 mothers bringing rickety children	,,	20	4	7
7 mothers bringing atrophic children	,,	28	12	12

In the atrophic children a history of syphilis was absent. These figures confirm well-known facts—the fertility of the phthisical and the liability to miscarriages of the syphilitic.

I am, Sir, yours obediently,

J. SCOTT BATTAMS,
Resident Medical Officer, East London Hospital for Children.

March 6th, 1883.

"THE OPINION OF A 'DENTAL SURGEON.'"

To the Editor of THE LANCET.

SIR,—I noticed an annotation in last week's LANCET under the above heading *à propos* Mr. Justice Field's estimate of the value of the evidence of a third-class emigrant calling himself a "dental surgeon," who presumed to proffer himself as a medical witness in an action brought by a co-emigrant against the owners of the ship in which they had travelled. I quite agree with your remarks, as with those of the judge, but though your meaning is plain to your professional readers there are other readers of your journal who might think that you classed those qualified surgeons who are practising dental surgery in a similar category with wholly unqualified dentists who call themselves dental "surgeon," and "surgeon" dentist. We are indebted to you for your generous aid afforded to the Association of Surgeons Practising Dental Surgery in their endeavour to arrest that disastrous legislation which has enabled almost wholly uneducated men to register themselves as "dental surgeons," thus placing themselves nominally on a footing with the best educated in the specialty, whether specially or doubly qualified, as every person really entitled to call himself a dental surgeon ought to be. I cannot but think that even the promoters of the Dental Registration Bill must blush in passing through the streets when they see the dental shops—literally *shops*—which they have called into existence, whose owners blazon their calling as "registered surgeon *and* dentist" (*sic*) above their show fronts, when they think how easily they might have purged the profession of such a pollution to its fair fame once and for ever, instead of admitting all who chose to term themselves dentists, as registered practitioners into their fold; whilst I am convinced that many licentiates of dental surgery cannot be less disgusted with the assumption of equality by such men with them, than we who are surgeons are by the unlicensed use of the title "surgeon" by persons whose practices are an opprobrium to any branch of the healing art, however humble it may be.

It is passing strange that those who dissuade the younger members of the profession from becoming *bonâ-fide* surgeons should be so jealous of assuming the title of dental "surgeon" and "surgeon" dentist, whilst we who are medically qualified are quite content with the noble title of "surgeon," Licentiates of Dental Surgery though we may be also. But I am not alluding to those who hold the dental licence of the College of Surgeons, though I would that they would all take a medical qualification also; but to the horde of utterly unqualified dentists who were most disgracefully permitted to be registered by the promotors of the Dental Bill, and now insult every qualified practitioner by the adoption of the designation surgeon, a practice you so justly reprobate.

I am, Sir, your obedient servant,

S. HAMILTON CARTWRIGHT,
Professor of Dental Surgery, King's College, London.

March 6th, 1883.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

AT the late anniversary meeting of the Gateshead Dispensary, Dr. Purdie, the resident medical officer, stated in his report that the total number of patients treated during the previous eleven months was 16,847, as compared with 15,889 of the previous full twelve months. The most notable feature of the year consisted in the prevalence of zymotic diseases, opening with whooping-cough, followed shortly afterwards by scarlet fever, with its usual accompaniments, erysipelas, and puerperal fever, typhus, German measles, and small-pox; these all continued to show themselves with more or less severity during the summer, and unfortunately are not yet eradicated from the district. In consequence of the run on the resources of the institution the treasurer's account showed a balance on the wrong side, but not to an serious extent, while legacies had been received and invested to the amount of £800. The Gateshead Dispensary has always been distinguished by good management and for doing all that was possible for the sick poor with the means at its command. At this meeting Dr. Newcombe thought that the efficiency of the charity would be greatly augmented by a hospital, which was greatly needed in Gateshead; and in this he was supported by many of the subscribers and committee. Indeed, it is a wonder that a large town like Gateshead, with a working population of nearly 70,000, should be so long without a hospital of its own, particularly as it is dependent on the Newcastle Infirmary, and that valuable institution is strained in its accommodation at present, to say nothing of natural increase of patients to be looked for and expected in the future.

With regard to our infirmary, much satisfaction is expressed here that the pressure attempted to be placed on the medical staff by some of the governors, in the way, under cover of economical motives, of restraining them from ordering a diet calculated to suit their patients, was so successfully resisted; and it is felt that the retrenchment should be carried out in other directions. Some correspondence has appeared in our papers pointing out that the place is taken unworthy advantage of by many companies and firms, who contribute no adequate subscriptions; but if the men are injured at any manufactory, railway, or colliery, they are shunted off to the infirmary, and sometimes to the very great suffering and detriment of the wounded. There can be no doubt that many of these cases could, if they fell into skilled hands, be better treated on the spot, to the great relief of the infirmary, and extension of its usefulness. This opens out the question of the "farming system" of colliery appointments, so prevalent in the mining districts of Northumberland and Durham, and until there is a higher value placed on competent surgical services, it is to be feared that the system of unqualified assistance must continue, and perhaps increase. It is not a question of supply and demand, but purely one of work and pay, and as such the overseers and the *employés* have its settlement in their own hands, by holding out adequate inducements for qualified aid.

Small-pox is so rife at the colliery village of Seghill, in the Morpeth district, that the poor people are said to be suffering from want, and help for them is being asked in our local papers.

Sir William Armstrong, in offering the Jesmond Dene Park and buildings to the Corporation for our use, has, amongst other things, stipulated for measures to be taken for diverting the ever-increasing sewage of Gosforth and Bulman Village from the Burn, which flows through the grounds, and also that the grounds are not to be laid out so as to render them more artificial than at present. Some idea of Sir William Armstrong's munificence may be formed from the fact that the money value of the parks which he has presented to us is estimated at £80,000, and that altogether his known benefactions to our charitable and scientific institutions added to the above will amount to fully £200,000.

I was present by invitation on Friday evening last at an inspection by an officer from the War Office of an ambulance class of about thirty officers and men of the first Northumberland Artillery Volunteers. The instruction, given by Dr. Mears, included the immediate treatment of the injured

and sick, and their removal by stretchers and improvised methods, as well as bandaging, &c. Colonel Addison Potter, C.B., Dr. Cook of Gateshead, who has long taken a prominent and active part in the volunteer medical department, and several practising medical men of our city and vicinity were present, and they all expressed their gratification at seeing the skilled manœuvres of Dr. Mears' class. I am sorry to record that a few days ago our volunteers followed the remains of an old companion to the grave—Mr. John Hope, who, although senior surgeon to the 1st Newcastle Artillery, was yet a young man when he died at Grange-on-the-Sands, from phthisis, much regretted.

Newcastle-on-Tyne, February 28th, 1883.

GLASGOW.

(From our own Correspondent.)

A WINDFALL.

THE Library of the Faculty of Physicians and Surgeons has had a windfall. The son of the late Dr. William Mackenzie (the famous oculist) has presented to the library the whole of his father's medical books and papers. The magnitude of the gift may be inferred when it is stated that over nine hundred new entries have to be made in the library catalogue on account of it; while there are some hundreds of other books and pamphlets of which the library already has copies.

THE GLASGOW ROYAL INFIRMARY.

Affairs cannot be said to be going on well at the Royal Infirmary. The disregard of professional feelings and interests, shown by the managers in pushing through a series of oppressive regulations concerning purely professional matters, and that against the unanimous protest of their staff, are bearing their natural fruits—namely, contention between the staff and the management. One of the most painful incidents of this whole controversy so far has been that in which one of the Faculty representatives at the infirmary board figures most prominently. That gentleman has all through felt himself bound conscientiously to differ from his professional brethren, and has accordingly supported the anti-professional party in the various steps it has taken. For this reason he was asked at a meeting of the Faculty to give some account of his stewardship, but this he flatly refused to do on the very extraordinary ground that he did not consider himself the representative of the Faculty, which was thus not entitled, even *ex gratia*, to any explanation of his action. As he persisted in this refusal the Faculty passed a vote of want of confidence in him as their representative. The action of the Faculty in thus questioning one of its representatives so raised the ire of at least one of the infirmary directors that, at a managers' meeting, he actually proposed a vote of censure on one of the infirmary staff who had acted as spokesman at the Faculty meeting in question. This again brought the whole of the staff shoulder to shoulder, and it was well understood that a general resignation would have resulted had this motion been adopted. When this vote of censure came up for consideration, however, its proposer was absent, and it was promptly negatived. Not only so, but a partly professional committee was appointed to consider the whole of the matters in dispute; and it is to be devoutly hoped that the result of its labours may be the discovery of a *modus vivendi*. The director who was responsible for the vote of censure, no other than the chairman, has thrown up his directorship, an office he has held for twenty years, and has now appealed to the public, through the columns of one of our daily papers, to adjudicate between him and what he considers an insubordinate paid staff. And so the affair stands at present—"a very pretty quarrel as it stands." The Faculty representative is determined not to resign his office; the chairman will not be beaten; and the staff are resolved to win. It is hard to tell what may happen with the public for judges. Meanwhile, the public are treated to a very unedifying spectacle. Probably, however, much good may be done by the letting in of the daylight which such discussions throw on the working and management of large public institutions.

SCOTTISH NOTES.

(From our own Correspondent.)

THE MEDICAL EXAMINATION OF PAUPERS.

A HEATED discussion took place at the last meeting of the Stirling Parochial Board on a request by Dr. Drew that he might be provided with a proper apartment for the examination of such cases as could not be investigated in the inspector's room. It appears that a disused mortuary is now utilised as a place for conducting delicate inquiries by Dr. Drew, and he, alleging that this is in a most insanitary and even unsavoury condition, threatens an appeal to the Board of Supervision. The doctor was subjected to some severe and rather impertinent criticism, and ultimately a committee was appointed to consider the matter. Dr. Drew has just been appointed by the Home Secretary prison surgeon for Stirling.

THE FIFE JAMIESON MEMORIAL.

It will be remembered that some months ago it was determined by the friends of the late Dr. Fife Jamieson, Demonstrator of Anatomy at Aberdeen, to erect a memorial commemorative of his worth. The sum of £220 having been placed in the hands of the committee, a beautiful tablet in black and white marble has been erected in the Old Machar Cathedral, and with the balance a gold medal has been provided to be competed for annually in the anatomy class. The first award will be made by Professor Struthers during the course of the present month; and thus not only will the name of an amiable and accomplished student be perpetuated, but the study of the subject he loved and knew so well will be furthered.

SCIENCE LECTURES AT ABERDEEN.

Dr. Struthers has now concluded his course of lectures on "The Relation of Man to the Higher Animals." Both ladies and gentlemen have attended in large numbers, and have evinced much interest in the remarks, the illustrations, and the theories of the professor. The evolutionary hypothesis has been dealt with in an admirably impartial spirit; but all the more on this account, perhaps, the lecturer has ensured approbation of Darwinian views. In pointing out the advances made towards a scientific study of man by Oken and Goethe, Dr. Struthers showed that science was more indebted to the small and secluded university of Jena than to English Oxford and Cambridge, notwithstanding their enormous wealth. In advocating the study of comparative, rather than purely human, anatomy as a part of the medical curriculum, he indicated the difficulty felt by medical men, and even teachers of anatomy of the latter kind, in appreciating the value of evidence founded on a broad view of animal form and structure. In reply to the objection that man is derived from some lower animal form, it might be enough to reply that, if it be so, it is well that we should know the truth. But if it be so, does not that imply that civilised man has risen greatly, and hold out a reasonable hope that he may go on rising? We do not the less value truth and honesty and virtue, or unselfishness and a charitable spirit, or the love of art and refinement, or knowledge and intellectual culture, or affection and friendship and respect—all that go to make life worth living, in its present and its memories of the past; and as to the future, it need not cause us to abate any of the aspirations or hopes which well-informed and thoughtful men may reasonably form.

HEALTH OF DUNDEE.

Decidedly increased attention has recently been devoted to the consideration of the public health by the authorities at Dundee; and ere long we may hope that the energy of the sanitary committee and the judicious advice of Dr. Anderson may produce much-needed results. During the months of December and January whooping-cough and diphtheria were responsible for the high mortality; and it is illustrative of the popular views of sanitation that the deaths from diphtheria have caused almost a condition of panic, whereas the far greater mortality from whooping-cough has been scarcely mentioned. In the period referred to 87 deaths have been due to whooping-cough, while but 11 have arisen from diphtheria; and yet it appears to be forgotten that the more fatal disease is perhaps more infectious than

that which engages the whole present attention of the sanitary staff. In view of the alleged defects in the drainage of the borough, attention is properly devoted to the occurrence of diphtheria; but with a mortality eight times greater from another disease, it is time that some steps were taken to grapple with the more fatal malady. It is noteworthy that during January there were 77 deaths from zymotic diseases, while but 73 cases were reported to the medical officer.

The Aberdeen magistrates have shown a good example in prohibiting, in the interests of decency, a proposed shop-window exhibition of anatomical models.

It is seldom that the work of such young authors as Drs. Berry Hart and Balfour, of Edinburgh, receives such a cordial recognition as their recent gynæcological treatise has met with. Not only is the first edition already exhausted, but our American cousins are showing their appreciation in the usual way: a pirated edition is announced.

PARIS.

(From our Paris Correspondent.)

PROFESSOR LASÈGUE lately delivered a very interesting clinical lecture at La Pitié Hospital on the differential diagnosis of dipsomania and alcoholism. According to the learned professor the disparity between these two forms of alcoholic poisoning is such that the dipsomaniac never becomes alcoholic, and the alcoholic never dipsomaniac. The dipsomaniac drinks by fits and starts, obeying a sudden spontaneous impulse without any temptation. The dipsomaniac, who, generally speaking, belongs to the upper classes of society, prefers solitude, avoids the company of those who would excite him to drink, and, drinking only at intervals, never becomes alcoholised in the ordinary sense of the term. The alcoholic is generally effusive, is fond of drinking in company, and drinks constantly, leaving off only when obliged to do so by social duties or other considerations. After having indulged in excess for some time he gets an attack of delirium tremens, which nearly always begins at night, which the patient passes in wakeful delirium. The dipsomaniac, however, never has an attack of delirium tremens; on the contrary, he generally sleeps well, even during the time he is enjoying his bottle, and it is only as his brain gets affected that he becomes more and more somnolent and stupid. Even the cachectic condition, resulting from alcoholic poisoning, is very different in the two cases. In concluding his lecture, Professor Lasègue drew attention to the fact that the number of alcoholics is not so great as one would be led to suppose, particularly if the number of persons who drink to excess be taken into consideration. For instance, in Paris, of the 3000 or 4000 cases of mental aberration recorded annually, there are scarcely 600 alcoholics. Even this figure is rather above the exact number, as several of the 600 have been treated more than once in the same year.

Examples of the disappearance of the manifestations of syphilis under the influence of acute affections, such as small-pox, scarlet fever, &c., have long been recorded in books; and Dr. de Sinety stated, at a recent meeting of the Biological Society, that he has had occasion to verify this fact during the recent epidemic of typhoid fever in Paris. But, strangely enough, gonorrhœal affections are not only aggravated under the influence of typhoid fever, but have a manifest tendency to be complicated with cystitis and lymphangitis Moreover, these gonorrhœal affections, which are generally amenable to treatment, and which in some cases get cured spontaneously, when left to themselves, become intractable when the patient is submitted to the special treatment after the cure of typhoid fever.

At the same meeting M. Dubois read a paper relative to the action of certain neutral bodies, such as chloroform, ether, and alcohol, on organic cells. He laid before the Society a dog he had killed three weeks previously, and which was then in a perfect state of preservation. This result was obtained by introducing into the stomach of the animal, after its death, a certain quantity of chloroform. This, M. Dubois observes, is a means convenient, prompt, and inexpensive, for preserving dead bodies against the effects of putrefaction.

For some time past Dr. Bertillon, the well-known statistician, had been confined to his room from an affection of the heart, complicated with Bright's disease, from which he died on Wednesday, the 28th ultimo, in the sixty-second year of his age. From an early period of his life he showed a taste for statistical researches, and the title of his inaugural thesis for the doctorate in 1852:—"Some of the elements of hygiene in their relation to the duration of life," foreshadowed the bent of his mind, which he eventually developed to such a degree that he was considered, in France at least, the founder of that branch called demography. His services in that direction were so appreciated that a new office was created for him in 1880 by the Prefect of the Seine, of which he was appointed the Director, and it was from that office that were issued the weekly reports so well known throughout Europe. Dr. Bertillon was also a profound scholar, a consummate botanist, and a distinguished anthropologist. His works on botany, particularly mycology, on physiology, on demography, on anthropology, and on medical and scientific philosophy, will also be referred to and consulted with advantage. He died a widower, leaving behind him three sons, the eldest of whom, Jacques Bertillon, is a doctor of medicine, and seems to have inherited the talents and peculiar tastes of his father. Dr. Bertillon was a member of the "Société d'Autopsie Mutuelle," to which, according to its rules, it was not only the head, but the whole body that was bequeathed by will. After the necropsy his remains were interred "civilly" at the cemetery at Neuilly, in the midst of a large number of sorrowing friends.

Paris, March 6th, 1883.

Obituary.

GEORGE MACKENZIE BACON, M.A. CAMB. (HONORARY), M.D.

WE have to announce, with much regret, the death of Dr. G. M. Bacon, on Feb. 22nd, at the early age of forty-seven. He was of an old and much-esteemed Norfolk family, several members of which have been remarkable for considerable intellectual attainments. His grandfather, Mr. Bacon of Norwich, was a man of mark even among the many distinguished persons who then adorned that town. Contemporary with him were Dalrymple, T. Crosse, and Martineau of our own profession; Alderson, afterwards Baron Alderson; and the artists Opie and his wife, and Crome. The *Norwich Mercury*, a paper of decided Whig opinions, of which he was the editor and proprietor, was in the very foremost rank of provincial journals. His son, Mr. G. P. Bacon of Lewes, whose death took place not many years ago, followed his father's profession and politics, being editor and proprietor of the *Sussex Advertiser*. He took a very prominent part in local affairs and in all political matters.

The subject of the present memoir received his medical education at Guy's Hospital and took his Membership of the College of Surgeons in 1858. He went in 1864 in the capacity of deputy to the Medical Superintendent to the Cambridge County Asylum at Fulbourn, and remained there in that capacity for two years. He then decided to travel in order to acquire wider professional knowledge and to perfect himself in French, German, and Italian, in which languages he was already a proficient. While in Italy, after nearly a year's absence, he received a message urgently desiring him to resume his duties at Fulbourn, in consequence of the serious illness of Dr. Lawrence, the medical officer. At the death of this gentleman, which took place one year later, the medical superintendency was given to Dr. Bacon, who carried on the duties up to the third day before his death, when he was attacked by peritonitis, apparently the result of an incomplete and unnoticed intestinal obstruction of very long standing. The improvements effected while he was in charge of Fulbourn Asylum were very great. The space allotted to each patient, at first insufficient for the purposes of health and proper treatment, was increased to the full extent required. Whereas the patients used formerly to dine in the day-rooms, separate dining-halls were erected both on the male and female sides. Large workshops were built almost entirely by the labour of the patients, and other

enlargements, made necessary by the increasing number of patients, were carried out; so that Fulbourn became an Asylum which, for its arrangements and for the employment of the patients in work, conducing to their mental and bodily health, may rank with the first. In 1869, two years after assuming the position of medical superintendent, he modestly commenced that course of unpaid lectures for the Medical School of Cambridge University for which, eight years later, the rare distinction of the honorary degree of M.A. was spontaneously conferred upon him by the University, he being presented in an eulogistic Latin speech by the Public Orator.

Of a retiring disposition and somewhat diffident of his powers, his published writings were comparatively few. He was, however, the author of many papers in THE LANCET, also of monographs on the Handwriting of the Insane, Primary Cancer of the Brain, &c. Were more required in testimony of his worth, it would be found in his many acts of private and unknown generosity. If pecuniary or professional help were required in the families of those with whom he came in contact, he was always ready and willing to give it, and in such an unostentatious manner that the knowledge of it rested entirely in the two concerned. Did any of the asylum people die and leave family or friends in need, it was he who first headed the subscription list and commended the case to his friends. One of his last acts previous to his final illness was to offer to the medical school of Guy's Hospital, to which he was much attached, a yearly prize of ten guineas to encourage the use of the ophthalmoscope among students.

SURGEON JOHN WYER, A.M.D.

LAST week we had to record the death of Surgeon J. Wyer, which occurred on Feb. 23rd, in the 94th year of his age. M. Wyer entered the A.M.D. as hospital assistant in 1811. He served until the end of the Peninsular war on the staff and with the 88th regiment, and received a medal with five clasps for Vittoria, Pyrenees, Nivelle, Orthez, and Toulouse. After the termination of the war he went to Canada with the 88th, and was present at the taking of Plattsburg. In 1815 he returned to England and was immediately sent to Ostend. He missed the battle of Waterloo by a few days and went to Paris, and remained in France with the 88th, which formed part of the army of occupation, for nearly a year. After his return to England he was placed on half-pay for some years. Resuming active service in 1824 Mr. Wyer was sent to the Cape of Good Hope and served in the colony until 1831 when he returned to garrison duty in Chatham and Ireland where he was gazetted surgeon to the 74th. With this regiment he went to the West Indies, was transferred from it to the 19th with which he returned to England in 1836, and was eventually placed on reduced pay, on account of illness, in 1840. He volunteered for the Crimean war, but his services were not accepted. In 1879 he was granted a pension of £100 per annum for distinguished and meritorious service. He was a private pupil of Mr. (afterwards Sir) A. White, and studied at the Westminster Hospital. Mr. Wyer was, if not the oldest, one of the oldest members of the Royal College of Surgeons, his diploma bearing the date 1831.

FRANCIS GOODCHILD, M.B. LOND.

WE regret to have to record the death of Mr. F. Goodchild of Ealing. He was born in 1854 and, after spending some time at other preparatory schools, went to Marlborough College and subsequently to the Medical College at Epsom. After matriculating at the London University, he entered St. George's Hospital, where he was well known as an industrious and successful student. He gained the Brackenbury Medical Scholarship and the Thompson medal at St. George's. In 1874 he obtained the silver medal in Botany at the Apothecaries' Hall; in 1876 he took the M.R.C.S. diploma; and in 1877 the M.B. Lond. degree. He was Assistant House-Surgeon at St. George's Hospital, a post which he vacated after a six months' tenure in 1878. He then commenced practice in Ealing, in conjunction with his father, and gained the good opinion of all with whom he was brought into contact. On the 25th ult. he was found dead in bed, and, at an inquest held on the 27th ult., the jury returned the verdict that death was accidentally produced by the inhalation of chloroform, a bottle which had contained this drug being found empty in his room.

ROYAL COLLEGE OF SURGEONS.

ON Thursday last the Council of the College of Surgeons considered and adopted the report prepared by the delegates and those appointed by the College of Physicians on the establishment of a combined complete examination in medicine, surgery, and midwifery. As this report has not yet been presented to the College of Physicians, and as its contents can only be authoritatively known to the twenty-four Members of the Council of the College of Surgeons and the 390 Fellows of the College of Physicians, it must for the present be regarded as "private"! Under the circumstances, we must be content to refer our readers to the rumours recorded in another column.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, March 1st, the return of the correspondence between the Irish Government and Dr. Martin O'Connor was ordered to be printed; and, on the motion of Mr. Hibbert, annual vivisection returns were ordered.

On Friday, petitions for the registration of midwives were presented from Petersfield, London, and Glasgow.

Mr. J. K. Cross, replying to Dr. Cameron, said an inquiry had been made as to the prevalence of glanders amongst the cavalry of the Indian expedition to Egypt, but the report was not yet to hand. No information had yet reached the India Office as to any officer or other person having died of glanders on the way back from Egypt.

On Tuesday, Mr. Redgrave's report on lead-poisoning, with other communications addressed to the Home Secretary on the subject, were presented.

Vaccination Questions.

Lord Hartington, in reply to Mr. P. A. Taylor, said every recruit was compulsorily vaccinated. This was not explained before enlistment, but there had been no instance of objection to the alteration. Mr. Hopwood asked the President of the Local Government Board whether the order of the Local Government Board of Jan. 27th, addressed to boards of guardians, does not recite, with approval, that "some boards of guardians have passed a resolution requiring the medical officer, subject to the exercise of his judgment as to making exceptions in particular cases, to secure the vaccination of all children born in the workhouse as soon as possible after birth;" whether the Local Government Board place any, and what, limit of age before which a newly born child should not be vaccinated; and whether the Department is aware that its orders or directions form no defence in point of law to the vaccinating officer on a charge of manslaughter by reason of too early vaccination. Sir C. Dilke said the quotation was correct. It was not the practice of the Local Government Board to issue "orders" to boards of guardians on the subject of vaccination, but it sometimes issued letters of advice. The Board had placed no limit of age before which a child should not be vaccinated. No "order" of the Local Government Board, of course, would form a defence to a vaccination officer charged with manslaughter. No such charge had ever been brought, except in the recent case in London, with the result of which the hon. member was doubtless acquainted.

Cruelty to Animals Act Amendment Bill.

On Wednesday, Mr. Anderson moved the second reading of this Bill. His primary object, he said, was to put down pigeon-shooting, the barbarities and cruelties of which he depicted with much force, contending that there was nothing of the element of sport in it, and that it was kept up solely for gambling purposes. Sir H. Maxwell moved an amendment to the effect that the Bill would put an end to legitimate sport. The discussion was

carried on by Mr. Forster, Earl Percy, Dr. Farquharson and other members; and Sir W. Harcourt, speaking for himself and not for the Government, gave the measure his hearty support. The second reading of the Bill was carried by 195 against 40, and was committed *pro formâ*, Mr. Anderson agreeing to drop the second clause in deference to the objections urged against it.

On Thursday, Mr. P. A. Taylor asked the Home Secretary whether his attention had been called to a case decided in the Westminster Police-court by the sitting magistrate on Feb. 10th, when the magistrate fined Mr. Armfield for the non-vaccination of his child, though he proved that he had transmitted, according to the statute, to the vaccination officer a certificate from a registered medical practitioner "that the child was not in a fit state to be successfully vaccinated," &c. The Home Secretary postponed his answer for a day or two.

A Wake in a Fever Den.

Mr. Corbet has given notice to question the Chief Secretary for Ireland upon a report that a wake was allowed to be held for two days and nights on the body of a man named Bartholomew Roe, who died in St. Andrew's parish, Dublin, of fever of a very malignant type, leaving a widow and eight young children; that the widow was struck down, and died in a few days; that some of the children have taken the disease, and are now inmates of Cork-street Fever Hospital.

Oversizing Cotton.

Mr. Broadhurst gave notice to ask the Home Secretary whether he is now in a position to give a reply to the memorial of the cotton operatives for a medical inquiry into the system of oversizing of cotton cloth.

Medical News.

UNIVERSITY OF CAMBRIDGE. — At a Congregation held on March 1st the degree of M.B. was conferred on the following gentlemen:—

Bullar, John Follett, Trinity.
Knowling, Ernest Mansford, King's.
Swift, Henry, Gonville and Caius.

BRITISH MEDICAL SERVICE.—The following is the list of the candidates for appointments as Surgeons in this Service who were successful at the competitive examination held in London on Feb. 19th:—

	Marks.		Marks.
Bruce, D.	2630	Moore, R. R. H.	2220
Gordon, H. C.	2460	O'Shaughnessy, P. J. B.	2170
Bell, H. L.	2447	Robertson, J. R. S.	2170
Riordan, J.	2435	Tate, A. E.	2130
De Lom, H. A.	2415	Faunce, C. E.	2130
Firth, R. H.	2400	Leudrum, W. H.	2060
Nelis, G.	2350	Wyatt, H. J.	2050
Gallwey, P. J.	2280		

INDIAN MEDICAL SERVICE.—The following is the list of the candidates for appointments in this Service who were successful at the competitive examination held at Burlington House on Feb. 19th and following days. Of the 22 candidates who competed 21 were reported qualified:—

	Marks.		Marks.
Young, J. M.	2555	Quicke, W. H.	2255
Jamieson, G.	2525	Evans, A. O.	2225
Collie, M. A. T.	2515		

NAVAL MEDICAL SERVICE. — The following is the list of the candidates for appointments as Surgeons in this Service who were successful at the competitive examination held at Burlington-gardens on Feb. 19th and following days:

	Marks.		Marks.
Mends, B. S.	2600	Penn, J. E.	2100
Crowley, T. J.	2445	Nicholson, R. H.	2050
Keens, A.	2415	Bury, P. B.	1990
Lennox, D.	2250	Seymour, J. N.	1975
Gunn, B. C. E. F.	2185	Barrington, J. L.	1885
Hoskyn, D. T.	2150	Sugrue, J.	1875

DOCTORS ON DRINK.—The first of a series of medical demonstrations is to be held to-day (Friday) in the Royal Victoria Coffee Hall, Waterloo-road, at 8 P.M. Several medical gentlemen are expected to be present to give their views on the subject of temperance.

MEASLES is still so prevalent in Kirkwall that it has been determined to close the schools of the town for the present.

VACCINATION GRANT. — Mr. John Blackburn has again received the Government grant for successful vaccination in the borough of Burnley.

SOCIAL SCIENCE ASSOCIATION.—It has been decided that the annual congress of this Association shall be held from Oct. 3rd to 10th at Huddersfield. The usual preliminary public meeting will be held in that town on the 21st inst.

MEDICAL MAGISTRATES. — Mr. William Berry, L.R.C.P., L.R.C.S. Ed., of Wigan, and William Yates, M.D. Aber., of Oldham, have been placed on the Commission of the Peace for their respective towns.

THE sum realised by the recent Hospital Saturday and Sunday collections at Baltimore, U.S.A., amounted to 2221 dollars. It is stated that the Roman Catholic places of worship took no part in the effort to increase the funds of the medical charities of the city.

ROYAL INSTITUTION OF GREAT BRITAIN.—Professor John G. McKendrick, M.D., F.R.S.E., Fullerian Professor of Physiology, R.I., will, in April, May, and June, deliver ten lectures on "Physiological Discovery: a Retrospect, Historical, Biographical, and Critical."

THE WEST LONDON HOSPITAL.—At a general meeting of the governors of this hospital, held on the 26th ult., the annual report of the Committee of Management was read. A favourable report of the financial condition of the hospital and particulars of the fund at present being raised for the erection of a new wing were given. The total number of in-patients had been 678, and of out-patients 13,503. A vote of thanks was passed to the honorary physicians and surgeons for their services during the past year, and the meeting was then closed.

ROYAL BERKSHIRE HOSPITAL. — The forty-fourth annual court of governors of this institution was held on the 27th ult. From the treasurer's report it appears that the total ordinary receipts for the past year were £5787 17*s.* 3*d.*, and the total ordinary expenditure was £6551 6*s.* 6*d.* The new buildings are almost completed, and £13,960 has been paid on that account up to the present time. The private Nursing Home has been enlarged, and now affords accommodation for twenty-four nurses, the number previously being sixteen. A resolution "that the committee of the Reading Provident Dispensary be entitled to one in-patient's ticket for each guinea subscribed" was, after a lengthy discussion, lost, it being felt that the giving of exceptional advantages to the Reading Provident Dispensary would open the door to similar applications from other bodies, to the serious detriment of the funds of the hospital. Dr. Wells, in acknowledging the vote of thanks to the medical staff, expressed the approval of his colleagues of the accommodation now afforded them in the new buildings, and especially of the very handsome library and museum nearly completed.

ASTLEY COOPER PRIZE.—The next triennial prize of £300 will be awarded to the author of the best essay or treatise on "Diseases and Injuries of the Nerves and their Surgical Treatment, together with the Operations performed upon Nerve-trunks in the treatment of various diseases, and descriptions of the changes which ensue in other structures as well as in the nerves themselves from these operations." The condition annexed by the testator (the late Sir Astley P. Cooper, Bart.) is, "That the essays or treatises to be written for such prize shall contain original experiments and observations which shall not have been previously published, and that each essay or treatise shall (as far as the subject shall admit of) be illustrated by preparations and by drawings, which preparations and drawings shall be added to the museum of Guy's Hospital, and shall, together with the work itself, and the sole and inclusive interest therein and the copyright thereof, become henceforth the property of that institution, and shall be relinquished and transferred as such by the successful candidate." The essays may be written in the English language, or if in a foreign language accompanied by an English translation, and must be sent to Guy's Hospital on or before January 1st, 1886, addressed to the physicians and surgeons of Guy's Hospital.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BALDING, MORTIMER, M.D.Cantab., M.R.C.S., has been appointed Medical Officer for the Second District of the St. Albans Union.

BARNES, R. S. FANCOURT, M.D., C.M.Aber., M.R.C.P.Lond., has been elected Physician to the Royal Maternity Charity.

BAYNES, Mr. J., jun., has been reappointed Public Analyst for the East Riding of the County of York.

CLIPPINGDALE, S. D., M.D., F.R.C.S. (late Resident Medical Officer), has been appointed Surgeon to the Kensington Dispensary, vice Walter Ottley, M.B.Lond., F.R.C.S., deceased.

DICKINSON, WILLIAM HOWSHIP, M.D.Cantab., F.R.C.P.L., has been appointed Consulting Physician to the Kensington Dispensary, vice Dr. A. T. Wilson, deceased.

EARLE, LESLIE MEREDITH, M.D., C.M.Ed., has been appointed Medical Officer for the Fourth and Fifth Districts of the Royston Union.

GREASLEY, JOHN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Third District of the Blean Union.

HEWKLEY, FRANK, M.R.C.S., L.S.A.Lond., has been appointed Assistant Medical Superintendent to the Royal India Asylum, Ealing.

LANE, ALEXANDER, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Madley District of the Dore Union.

PHILIP, THOMAS, M.B.Ed., has been appointed House-Surgeon to the Greenock Infirmary, vice C. Hunter, M.B., resigned.

PROTHERO, RICHARD, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Amlock District of the Anglesey Union.

REID, W., M.B., C.M., has been appointed Resident Medical Officer to the Kensington Dispensary, vice Clippingdale, resigned.

RYLEY, JOHN RUTHERFORD, M.D., F.R.C.S.Ed., has been appointed Surgeon to Galgong Hospital, New South Wales.

SANDFORD, ARTHUR W., M.D., M.Ch., has been appointed Surgeon to the Cork Ophthalmic and Aural Hospital.

SYME, JAMES, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Egremont Urban Sanitary District.

WEBB, CHARLES FREKE, F.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Basingstoke Urban Sanitary District.

Births, Marriages, and Deaths.

BIRTHS.

BERRY.—On the 3rd inst., at Bracondale House, Wimbledon, the wife of O. W. Berry, M.R.C.S., of a daughter.

GEORGE.—On the 27th ult., at Malvern Link, Worcestershire, the wife of J. W. George, M.R.C.S., of a daughter.

HALL.—On the 2nd inst., at Queen Anne-street, Cavendish-square, the wife of F. De Havilland Hall, M.D., F.R.C.P., of a daughter.

JACKSON.—On the 3rd inst., at Barnstaple, Devon, the wife of Henry Jackson, M.R.C.S., of a son.

LAMMIMAN.—On the 1st inst., at Mount Ephraim, Tunbridge Wells, the wife of Cleland Lammiman, F.R.C.S., of a daughter.

WILSON.—On the 28th ult., at Leytonstone, Essex, the wife of Albert Wilson, M.D., of a daughter.

MARRIAGES.

EMMERSON—HARVEY.—On the 27th ult., at Leicester, John Bolton Emmerson, M.D.Durh., M.R.C.S.E., of Biggleswade, to Kate, daughter of Joseph Harvey, Solicitor, Leicester.

TURNER—TAYLOR.—On Jan. 25th, at Trinity Church, Cape, William John St. John, elder son of Surgeon-General Turner, F.R.C.S., H.M.I.A., of the Bombay Presidency (Retired), to Charlotte Anne, eldest daughter of the late James Taylor, Esq., of Graham's Town.

DEATHS.

ARNOTTE.—On the 4th inst., at St. Stephen's-crescent, Westbourne-park, W., James Arnotte, M.D., formerly of St. Helena, in his 87th year.

BACON.—On the 22nd ult., at the Cambridge County Asylum, Fulbourn, George Mackenzie Bacon, M.A. (Hon.) Cantab., M.D., in his 47th year.

GARDNER.—On the 28th ult., at his residence, Shelly Lodge, Worthing, Sebastian Claude Thomas Gardner, M.R.C.S.E., aged 43. Friends will kindly accept this intimation.

GOODCHILD.—On the 25th ult., at Heathfield House, Ealing, Francis Goodchild, M.B.Lond., aged 28.

PONDER.—On the 28th ult., at his residence, Hayes Cottage, Dalwich-road, Brixton, William Ponder, M.R.C.S., in his 75th year.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, March 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Flower, "On the Anatomy of the Horse and its Allies."

MEDICAL SOCIETY OF LONDON.—Dr. Routh, "On a Case of Poisoning by Citrate of Caffein."—Dr. Robert Lee, "On the Diffusion of Medicinal Agents in the Atmosphere."—Dr. Symes Thompson, "On Alpine Health Resorts."

Tuesday, March 13.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Professor R. S. Ball, "On the Supreme Discoveries in Astronomy (the Astronomical Significance of Heat).

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. H. O. Forbes, "On the Ethnology of Timor-laut."—Dr. Gustav Oppert, "On the Classification of Languages."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. A. Willett and Mr. W. J. Walsham, "On a Second Case of Malformation of the Left Shoulder Girdle, with remarks on the nature of the deformity.—Dr. Percy Kidd, "On Two Cases of Congenital Syphilis of the Larynx."

Wednesday, March 14.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Flower, "On the Anatomy of the Horse and its Allies."

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Lumleian Lecture: Dr. A. B. Garrod, "On Uric Acid, in its relation to Renal Calculi and Gravel."

HUNTERIAN SOCIETY.—7.30 P.M. Council.—8.0 P.M. Mr. Tatham, "On Malformed Heart."—Dr. Warner, "The Advantages of Antiseptic Precautions in Draining Dropsical Legs."

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Dr. C. T. Hudson, "On a Batch of New Floscules."

Thursday, March 15.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On the Spectroscope and its Applications."

HARVEIAN SOCIETY.—8.30 P.M. Clinical Evening. Several Cases and Specimens of Interest will be exhibited.

Friday, March 16.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Flower, "On the Anatomy of the Horse and its Allies."

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Lumleian Lecture Dr. A. B. Garrod, "On Uric Acid, in its relation to Renal Calculi and Gravel."

ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Thoughts on Radiation, Theoretical and Practical."

Saturday, March 17.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. H. H. Statham, "On Music as a Form of Artistic Expression."

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 8th, 1883.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Mar. 2	30·63	E.	42	39	..	47	38	..	Overcast
,, 3	30·69	E.	39	37	..	51	32	..	Hazy
,, 4	30·63	E.	39	38	..	51	32	..	Hazy
,, 5	30·62	E.	36	35	..	54	30	..	Foggy
,, 6	30·21	N.	39	37	..	43	32	..	Cloudy
,, 7	30·31	N.	31	..	..	39	26	..	Cloudy
,, 8	29·75	N.	29	..	..	36	23	·07	Cloudy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A MONSTROSITY.

ACCORDING to the *Imparcial* of Madrid, a young woman aged twenty-three, and living in Calle Teresa Gil, at Valladolid, has, after seven months' pregnancy, just given birth to a female child, in every respect perfectly developed, but possessing two heads. We are farther called upon to believe that these heads incline towards and seem to issue from the right and left shoulders, for there is a space of ten centimetres between each. In this gap a bony protuberance of conical form issues and attains a height of about five centimetres, forming a sort of summit to the vertebral column. This startling announcement concludes with the assurance that the mother is as well as can be expected under the circumstances. Many readers will, however, feel more inclined to inquire as to the health and mental condition of the ingenious reporter to whom the Spanish press is indebted for this startling item of news.

Equality.—1. A public vaccinator can only charge the guardians for vaccination done elsewhere than at one of the stations appointed in his district under the exceptional circumstances named in the Order in Council of Feb. 18th, 1868, and he must in each case enter the special reason for such non-stational vaccination in his vaccination register. The exceptional circumstances may be summed up as follows:—(*a*) If the person vaccinated lives more than two miles from any of the stations. (*b*) If there be some sufficient reason, such as illness, preventing the child or person from attending at the station. (*c*) If there be "immediate danger" of small-pox.—2. If we understand the question correctly, it is practically answered above. The public vaccinator can make no charge at all for such vaccinations except under the circumstances named, and if the guardians pay them they will probably be surcharged.

"SERIOUS COMPLICATION DURING PREGNANCY."

To the Editor of THE LANCET.

SIR,—In answer to the letter of "A Young Practitioner" on the above, I should say that the latter part of his letter answers his question—"Should labour have been brought on?" His pregnant patient suffered from what he calls bronchitis, but he gives some of the symptoms of pneumonia. He called in another medical man (one generally calls in an older and more experienced man as consultant), and he, doubtless for good reasons, would not sanction the induction of premature labour, and the result proves the correctness of his decision, for, after what "A Young Practitioner" calls a short and easy labour, the patient died from apparently the same disease under which she suffered before her confinement.

I am, Sir, your obedient servant,

March 5th, 1883. AN OLD PRACTITIONER.

ASSISTANTS' RESIDENCES.

IN the County Court, Peterborough, Mr. Charles Allen, assistant, of Castor, claimed £5 for breach of contract with Mr. Fergus Malcolm Brown, in respect of a cottage which the defendant had engaged to provide for the assistant, and which the latter alleged to be, and brought a considerable amount of evidence to show was, in a state unfit for habitation. Opposing evidence was brought by the defendant. The judge ruled that there had been no breach of contract, and therefore he could not allow damages; but, as the plaintiff had sustained considerable inconvenience, he asked that no costs be added to the inconvenience. The insanitary condition of the cottage seemed to be brought about chiefly by floods, which the previous tenant alleged occurred nine times in an occupancy of three years.

Subscriber (Newport).—We extract the following from Lumley's "Medical Officer's Manual":—"When he [the medical officer] considers any particular kind or any extra quantity of nourishment to be necessary, he must certify the same *in writing*, and cause the certificate to be delivered to the relieving officer, who is required by Art. 215, No. 5, of the Gen. Cons. Orders, to give due attention to such certificate. The medical officer, however, is not empowered to *order* such extras, but only to certify that in his opinion they are requisite, and the certificate is 'to be attended to in such a way and to such an extent as the relieving officer and the guardians, on their own responsibility, and on the knowledge of the circumstances of the individual in whose favour it is given, may deem to be actually necessary.'"

THE EXTERNAL APPLICATION OF SALICYLATE OF SODA IN ACUTE RHEUMATISM.

To the Editor of THE LANCET.

SIR,—Most, if not all, of us have observed the very good results following the administration of salicylic acid and salicylate of soda in cases of acute rheumatism. Some time ago I was led to use the latter externally in the form of a lotion, varying from fifteen grains to twenty grains to the ounce in water, to the affected joints, and I wish here to state the results of six cases so treated.

On Oct. 20th, 1880, I was called to see Mrs. S——, a strong, healthy woman aged forty. On my arrival I found her with all the symptoms of an ordinary attack of acute rheumatism, the joints more particularly affected being the right knee and ankle. Temperature 103·5°; pulse 130. Heart sounds clear. This was the first attack. She had never been ill before. She was given twenty grains of salicylate of soda with five minims of tincture of digitalis every four hours.—21st: Right wrist swollen and tender, also left knee; right knee and ankle easier. Pulse 110; temperature 102°. I ordered a solution of salicylate of soda in water, twenty grains to the ounce, to be applied every half hour to the affected joints.—22nd: I found my patient very much better. She informed me that in less than half an hour after the first application the pain began to subside, and now she scarcely felt any. Pulse 100; temperature 100·5°. The same treatment was continued, and she made a rapid recovery. So pleased was she with the lotion that she begged I would leave her the prescription.

In the other five cases the symptoms were well marked, and very great relief always followed the use of the lotion. I did not at all times apply the solution to all the joints; when I did relief followed quickly, sometimes in a few minutes, sometimes a little longer. Those joints to which I did not apply it were not relieved like the others.

I am, Sir, yours, &c.,

Duffield, March 5th, 1883. E. A. WHITELEY, L.R.C.P., &c.

Wilhemina F. Haslam.—We cannot possibly give the addresses of the whole of the signatories—numbering more than nine hundred.

W. W. W.—It may perhaps be sufficient to say that we declined to insert the advertisement.

Dr. Bantock.—The paper is marked for insertion.

Mr. Wm. Berry.—In an early number.

"DELIGHTS OF COUNTRY PRACTICE."

To the Editor of THE LANCET.

SIR,—Your notice of the above reminds me of an incident of my earlier days when I spent the night in an outhouse alone with a tramp, and delivered her on a coal sack spread on the bare earth, by the light of a tallow dip stuck in a bottle. My amusement during the weary hours was smashing bugs on the wall with the said bottle. There was no seat, fire, or comfort of any description in the place, and the winter wind whistled through the unglazed window. Good Samaritans were not plentiful in that parish, and the relieving officer lived five miles off. You may deem the enclosed appropriately descriptive of the "delights."

I am, Sir, yours faithfully,

March 3rd, 1883. E.

To the Editor of THE LANCET.

SIR,—The lines which appeared in last week's issue entitled "Country Practice" are very imperfect. Moreover, they were not composed by your correspondent, "E.," whoever he may happen to be, but were the production of the late Dr. Whitelock Nichol, a private memoir of whom was circulated among his friends, and among other pieces written by him were the lines referred to.—I am, Sir, yours, &c.,

Norwich, March 5th, 1883. CHARLES WILLIAMS.

INTERNATIONAL PREJUDICES.

A Graduate in Arts and Medicine has sent us a communication in which he endeavours, as "a native of the best-abused country under the sun," to return "something like a reply to the animadversions one sees perpetually heaped upon his countrymen." Whilst we deprecate the absurd prejudice sometimes shown against our fellow subjects in the sister isle, we cannot think that it is likely to be removed or lessened by rabid invective. Patriotism is a noble thing, but we fancy that a native of an island so famous for the chivalry and generosity of its sons as Ireland unquestionably is, must have felt some self-reproach for penning such strictures as our correspondent has done on members of the same profession as himself, and who cannot be justly blamed for the fact that their parents were not natives of the Emerald Isle.

A CHLORAL PATIENT.

To the Editor of THE LANCET.

SIR,—Might I ask the favour of your many readers' assistance on the following case:—I have a patient who for some three years has been suffering from periodical attacks of asthma. Unfortunately she got to know some time back that one of the drugs prescribed for her was chloral. So much benefit did she derive from it, that the taking this drug has become a confirmed habit. In fact, I have to deal with a chloral patient. Forty, fifty, and sixty grains for a dose she takes frequently, only a few nights back taking two drachms during nine hours. Her mother has cautioned all chemists about here not to supply her. She is allowed no money, but still she obtains the drug, how we cannot imagine. She has been known to travel ten miles to procure forty grains, such is the craving. The largeness or frequency of the dose taken may be imagined perhaps by her total inability to articulate, and her reeling so that she has to be supported or carried to bed, as the case may be. Her appearance in the streets whilst under these conditions has caused much unpleasantness to the family. All measures, by others as well as myself, are unavailing. Could you or some of your readers kindly inform me of a sanatorium or private house that would admit her where the above habit is likely to be checked? All home influence is futile. Her mother will pay a small sum weekly for her. I may add her age is twenty-three. By your insertion of this I should be greatly obliged, and beg to remain, Sir, yours obediently, SPES.

February 27th, 1883.

J. G. B.—The cubic capacity specified—namely, 300 feet—is the smallest that should be permitted. This capacity has, however, been regarded as sufficient where the means of ventilation have been reasonably adequate.

Kismet.—The question cannot be answered definitely. Cases have been known in which patients have been kept under the influence of chloroform for more than twenty-four hours.

THE DANGER OF MANGLING MACHINES.

To the Editor of THE LANCET.

SIR,—Might I, through your journal, make a suggestion to the manufacturers of washing and mangling machines whereby accidents to children could be prevented—viz., to encase the cogwheels. During the last week we have had two such accidents—the first, a child of five, cut off the top of her little finger; the second, a more serious case, was that of a girl aged four, who caught her left hand in the cogs, lacerating it very badly, and causing what I may call a compound dislocation of the second metacarpal joint of the forefinger, with protrusion of the first phalanx, the other two being drawn under the first. By enlarging the opening I succeeded in reducing the finger to its natural state, and hope to save it. I examined the machine (one of Bradford's mangling), and as an amateur carpenter could easily put on a casing to both sides with the aid of a blacksmith to cut four screw holes and corresponding screws, which screws and casing could be removed for cleaning and oiling. All this could be done by the makers at a small, if any, increase in price; but what safety would it not produce? No idle hands could then be lured by the revolving wheels. Trusting this is something useful, I am, Sir, your obedient servant,

Ashburton, Devon, March 5th, 1883. WILLIAM FRASER, M.B.

F. C. B.—Geological Atlas of England and Wales, 10s. 6d.; Ordnance Maps of most of England and Wales, 8s. 6d. each (Stanford, Charingcross); Shapter's Climate of S. Devon (Churchill).

Mr. Brace.—Seaton's Handbook of Vaccination.

N. N. K.—We do not prescribe.

"PERSISTENT HICCOUGH."

To the Editor of THE LANCET.

SIR,—I had scarcely concluded to-day the perusal of the column of communications on the above, contained in your last issue, when I was called out to a case of this nature. My patient, a gentleman aged eighty-seven years, had been troubled persistently for three days (night and day), and then sought advice. The inhalation of upwards of twenty drops of chloroform brought immediate relief to my patient. A few hours subsequently an attack was arrested at its onset by the same means. Permit me to express the hope that "M.D." has equally benefited by the communication of your correspondent, Mr. Peter W. De la Motte. I am, Sir, yours truly,

Great Paragon, Tenby, March 5th, 1883. JAS. M'CULLOCH.

RELIGION *v.* MERIT.

AT Ballinameen, in the county Roscommon, recently, at a special meeting of the Dispensary Committee in order to appoint a medical officer, the electors were harangued for a very considerable time by a Roman Catholic clergyman, who urged them to elect the candidate whose cause he supported, on the ground that he was of the same religion as the majority of the poor, and that they should not frighten their consciences nor those of their priests. His opponent being elected, those who exercised their right to vote for him were groaned and hooted by a number of people who had collected outside, and who were enraged at the result.

AN INTERESTING QUESTION.

To the Editor of THE LANCET.

SIR,—Will you be good enough to allow me space to ask the profession at home and abroad this question? If a white woman marries a black man and has children, of course the offspring would be mulattos; but, supposing the black man dies, and she is again married, this time to a white man, would the children of this second marriage be white, or would they be mulattos? Probably they would be mulattos, if the same rule holds good with human beings as it does with animals. For instance, the following, if I recollect rightly, will illustrate my subject. The experiment, I believe, was tried at the Zoo. A mare pony was first covered by a quagga; her foal was a half-bred quagga. Subsequently she was covered by a pony stallion; she still had half-bred quagga foals, as near as possible like to her first one.

It is a curious circumstance that the children by a second husband bear a greater resemblance to the first one than to their own father. If this should turn out to be a sound rule, or one of nature's true laws, then the subject becomes one of especial interest and importance to stock breeders. I mentioned the same to a large stock raiser in North-Western America the other day just before his return home, and he expressed his intention of trying the experiment with his unlimited supply of animals of all kinds.

I am, Sir, your obedient servant,

Buckhurst-hill, Feb. 27th, 1883. FRED. C. CORY, M.D.

Mr. R. Durdin.—We regret that we cannot find the case to which our correspondent refers. If he will repeat his statement of it, we will be glad to give him our opinion.

A Constant Subscriber.—The Epsom College is the only institution of the kind with which we are acquainted.

Subscriber.—Yes.

AN OBSCURE CASE.

To the Editor of THE LANCET.

SIR,—Perhaps some of your readers would kindly suggest a treatment which might prove beneficial in the following case:—

A. W——, aged eighteen, never menstruated. Was healthy till six years ago, when she suffered from gastric pain and vomiting, which came at long and irregular intervals. She was otherwise well, and in good health. Now she is very emaciated, although able to be out when free from pain, which is rarely for more than three or four days. The pain is only slightly aggravated by taking food, and this not always even. She first experiences a fulness about the stomach; then pain begins, and increases in intensity as the epigastrium gets more and more distended, and relief is only forthcoming when the gastric contents are thrown off. Then relief is almost complete, and lasts generally a day or two (rarely a week or two), at the end of which time the fulness, &c., return. The fluid vomited is creamy coloured, very copious, sour, and frothy; once or twice it has been brown. The stomach pain generally radiates over chest and through to the back. Any likely treatment would be carefully tried. I am, Sir, yours truly,

February 20th, 1883. PRACTITIONER.

WILL *A Victim* send his name and address with the particulars of the case to which he refers?

A Subscriber has not enclosed his card

A CORRECTION.

To the Editor of THE LANCET.

SIR,—Will you allow me to correct an error which appears in your issue of Feb. 24th? In your account of the meeting of the Pathological Society for the preceding Tuesday I am reported to have shown femora from *two* cases of osteitis deformans, and a description and comparison of the bones followed. Only the second of the bones mentioned was affected with the disease in question, the other femur being about as unlike a specimen of osteitis deformans as could well be found. Seeing that the paragraph is liable to be misleading, I trust you will find room for this explanation.—I am, Sir, yours truly,

March 3rd, 1883. ANTHONY A. BOWLBY.

"LIME-JUICE AS AN ANAPHRODISIAC."

To the Editor of THE LANCET.

SIR,—Relative to your correspondents' ("Nautilus" and Mr. Berdoe) communications on the above subject, on Feb. 3rd and 10th, it may not be uninteresting to many of your readers to know that sucking the juice of one or two lemons is frequently practised and with success by many women to stop an inordinate flow of the menses.

I am, Sir, yours, &c.,

March 5th, 1883. BENEDICT.

BETEL-NUT CHEWING.

A WRITER in the *Leisure Hour* for March remarks as follows on the above practice:—

"Betel-nut chewing is universal among the inhabitants of the Malay Peninsula. The betel-nut seems as essential to a Malay as tobacco to a Japanese, or opium to the confirmed Chinese opium-smoker. People say that the craving for stimulants is created by our raw, damp climate; but it is as strong in the sunny, balmy air at the equator. I have not yet come across a region in which men, weary in body or spirit, are not seeking to stimulate or stupefy themselves. The Malay men and women, prohibited by the Koran from using alcohol, find the needed fillip in this nut, but it needs preparation before it suits their palates. The betel-nut is the fruit of the lovely, graceful, slender-shafted areca palm. This tree at six years old begins to bear about one hundred nuts a year, which grow in clusters, each nut being about the size of a nutmeg, and covered with a yellow, fibrous husk. . . . The *Sirih* leaf was smeared with a little fine lime taken from a brass box; on this was laid a little brownish paste, on this a bit of the nut; the leaf was then folded neatly round its contents, and the men began to chew, and to spit, the inevitable consequence. The practice stains the teeth black. The Malays think that you look like a beast if you have white teeth."

"BUSINESS."

To the Editor of THE LANCET.

SIR,—The other evening a man came to my surgery stating that he was the agent for a local directory, and that in the coming issue of it they are making a list of medical men practising in the district. On my telling him that I supposed my name would be in it, he informed me that they made a charge for inserting names there. I replied that I was prevented from paying for anything of the sort by the unwritten law of the profession. He suggested that I should subscribe for two or three copies of the directory, and then my name would be inserted. I immediately showed him the door.

I find, however, that nearly all the medical men in the neighbourhood have done as the man suggested—viz., either paid or subscribed for copies.

I am, Sir, yours sincerely,

February, 1883. ETIQUETTE.

QUININE.

To the Editor of THE LANCET.

SIR,—I have lately discovered a method of taking quinine which almost conceals its bitter taste, and as it may be unknown to your readers, I send it to you. It can be taken in very strong *café noir* (such as the natives make here), cold, without any inconvenience. It increases the bitter taste of black coffee without overpowering it. I always add sugar, and it forms a capital stimulant.

I am, Sir, yours faithfully,

Chittour, Feb. 13th, 1883. JAS. J. L. RATTON, M.D., Surg.-Maj.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Woakes, London; Dr. Bristowe, London; Mr. Giffard; Mr. Bailey-Denton, London; Mr. J. S. Hutchinson, London; Dr. Clouston; Mr. J. P. Glover, London; Dr. J. E. Pollock, London; Dr. Bonavia; Mr. M'Culloch, Tenby; Dr. Ratton, Chittour; Dr. Irwin, London; Dr. Eben. Watson, Glasgow; Mr. S. H. Cartwright, London; Mr. Sagden, Queensland; Mr. Brace, London; Dr. R. E. Thompson, London; Mr. Wm. Berry, Wigan; Mr. Charles Williams, Norwich; Mr. M'Caw, Portglenone; Dr. Thomas, Sheffield; Dr. Bantock, London; Mr. Durdin, Desford; Mr. Eberle, Thirsk; Dr. Cousins, Southsea; Mr. Rivington, London; Mr. Puddicombe, Teignmouth; Mr. Hogg, London; Dr. Leachman, Petersfield; Mr. Dolan, Halifax; Dr. Van Santvoord, New York; Dr. Green, Gateshead-on-Tyne; Mr. Robson, Leeds; Dr. Battams, London; Mr. W. Lambert, London; Dr. MacDonnell; Mr. Bowlby, London; Dr. R. Lambert, London; Mrs. Cons, London; Dr. Fraser, Ashburton; Dr. Med. Wittlinger, Frankfurt; Dr. J. S. Cameron, Huddersfield; Dr. Clippingdale, London; Mr. Trickett, London; Mr. Dawson, Macclesfield; Mr. Harrison, Liverpool; Mr. Hamilton, Douglas; Mr. Hele, Honiton; Mr. Allsop, Shipley; Messrs. Barnard and Co., Norwich; Mr. Sparlali and Co., London; Messrs. Lee and Martin, Birmingham; Dr. Walker, Peterborough; Messrs. Kegan Paul and Co., London; Mr. Baron, Manchester; Mr. Nunn, London; Dr. M'Mab, Stornaway; Dr. Anderson, Cramlington; Mr. Armstrong, Newcastle-on-Tyne; Mr. Brailey, London; Mr. Pollard, Edinburgh; Mr. Berthier, Paris; Mr. Townsend, Exeter; Messrs. Hooper and Battey, London; Mr. Crallan, Fulbourn; Messrs. Kelly and Co., London; Mr. Healy, Newtown; Mr. Ellis, Margate; Mr. Bateman, Canterbury; Mr. Griffith, Sandwich; Mr. Goodworth, Winterton; Miss Kotch, London; Dr. Royle, Jersey; Mr. Scott, Manchester; Mr. Erskine, Chelsea; Mr. Priest, Hertford; Messrs. Burgoyne and Co., London; Mrs. Rahn, Ipswich; Mr. Garner, London; Mr. Henry, Gipsy-hill; Mr. Berkley, West Brighton; Mr. Skrimshire, Brynmawr; Messrs. Jolly and Son, Norwich; Mr. Park, Dublin; Mr. Fosbroke, London; Mr. Smith, Callington, Cornwall; Mr. Caulder, Aldershot; Mr. Savory, London; Mr. Sydney Jones, London; Dr. Wilberforce Smith, London; Mr. Meredith, London; Mr. Ashmead, Brierley-hill; Mr. Lancaster, Rock Ferry; Mr. Passmore, London; Mr. Hammond Williams, Glasgow; Mr. Arthur Roberts, Oaklands; Messrs. Cassell, Petter, and Galpin, London; Captain Douglas Galton, London; Dr. E. N. Smith; Mr. Wickham Barnes, London; Dr. Phillips, Birmingham; Dr. Garrod, London; Mr. Smith, London; Etiquette; Eric; Spes; The Director-General of the Army Medical Department; The Director-General of the Naval Medical Department; An Old Practitioner; A Subscriber; Doctus; A General Practitioner; A Parent; Scalpel; Equality; Benedict; L. G. B.; Chirurgien; Subscriber, Bermuda; Sigma; Britannia Rubber Company; T. C. M., London; F. P.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Ellis, Margate; Miss Thompson, Oldham; Messrs. Kerry, Chippinham; Mr. Reading, Southsea; Mr. Rowley, Barnsley; Mr. Wilson, Birmingham; Mr. Harding, Westgate-on-Sea; Messrs. Smith and Co., Manchester; Mr. Fosbroke, Birmingham; Mr. Davas, Lampeter; Mr. Pearce, Bellingham; Mr. Tomney, Llandyssil; Mr. Williams, Port Isaac; Captain Poulton, Cheadle; Mr. Aslett, Newark-on-Trent; Mr. Morgan, Lichfield; Dr. Maclagan, London; Mr. Stafford, Welshpool; Mr. Newcombe, Boston; Mr. Ball, Stoney Stratford; Mr. S. Newman, London; Mr. Pryn, Crediton; Mr. M'Cormac, Huddersfield; Mr. Johnson, Sparkbrook; Dr. M'Guinness, Ebbw-vale; Dr. Fraser, Burnham; Mr. Reading, Southsea; Messrs. Evans and Co., Warwick; Mr. Fletcher, Manchester; Messrs. Sanderson and Co., London; Mr. Lawson, Amersham; Dr. Roberts, London; Mr. Fox, New Barnet; Dr. Kerr, Cranshawbooth; Mr. Van Praagh, London; Mr. Herbert, Stafford; Dr. Waller, Peterboro'; Mr. Horne, London; Dr. Scott, Bournemouth; Mr. Pigeon, Clifton; A. J. R., Brixton; H. J. L., London; X. Y. Z., London; A. W. S., Kingston; R. C.; A. T.; Beta, Tunbridge Wells; Eke; C. S.; Woolicombe, Dublin; J. W. H.; Hippocrates; L. Z. Y.; Zeus; Medicus, Manor-park; C. C., Sydenham; Vendor; D. W. W.; E. J.; Aylmer; Medicus, Newport; Scipio; M. C., Croydon; Bona Fides; Omega; Æsculapius; Medicus, Goole; X., Stoke-on-Trent; C. E. H.; &c., &c.

Whitehaven News, Educational Times, Midland Echo, Philanthropist, Manchester Evening News, Middlesex County Times, Reading Mercury, &c., have been received.

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Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.